ANGER IN WOMEN WITH DEVELOPMENTAL DISABILITIES: COGNITIVE BEHAVIOURAL THERAPY – A CASE SERIES

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DECLARATION

The candidate confirms that the work submitted is her own and that appropriate acknowledgement has been given where reference has been made to the work of others.

The research on which this thesis is based was conducted by a clinical team led by the candidate in a National Health Service setting. Approval was received from the Trust Research and Development Committee and the local health Ethics Committee in May 2001. The candidate acted as the principal investigator and supervisor for this clinical research project, as well as one of the seven therapists for the treatment study.

The original suggestion for the research was made by Professor John Taylor who supervised the research aspects of the project. The initial suggestion was for a replication of the treatment outcome study which had been carried out with a sample of men in the same service. Given the much smaller sample, this was developed by the candidate into an appropriately adapted design, along with a plan to resource the project within existing staffing, deliver and evaluate treatment. The material for the thesis is the work of the candidate with support and advice from Professor John Taylor, University of Northumbria, Professor Ray Novaco, UCLA, my University of Edinburgh adviser, Professor Mick Power and some statistical advice from Professor Dave Peck.

The candidate confirms that this thesis has not been submitted in candidature for any other degree, diploma or professional qualification.

ABSTRACT

Whilst there is good evidence for the effectiveness of cognitive behavioural anger treatment in populations of men, there is very little literature on the nature of anger in clinical populations of women, and little by way of individual anger treatment in people with a developmental disability. There has been considerable criticism of the assumptions made within forensic services that women can be treated in the same ways as men. The purpose of this study was twofold: firstly, it explored the nature of women's anger in a small sample (n=28) with a developmental disability in a hospital forensic service, and compared them with men in a study based in the same setting; secondly, it evaluated treatment outcome for those meeting inclusion criteria for an eighteen session individual treatment programme. The design of the outcome study (n=9) was a multiple baseline study with participants acting as their own controls. Some qualitative material is presented in relation to three case studies in order to illustrate process and because this has been a consistent recommendation regarding research into women in forensic services.

Results showed that there were virtually no differences in self reported or staff reported anger, but more women had assaulted than men during their admission. Results also showed that the majority of women improved post treatment and through follow up. It was concluded that women in this service experienced similar anger to the men and could benefit from the same cognitive behavioural treatment programme.

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I have received a great amount of co-operation, help and support from nursing colleagues at the NHS Trust. I am particularly appreciative of nursing staff at all levels in the two women's wards, from those who directed and facilitated staff to cooperate, to those who supported participants with their homework tasks. In particular I was motivated and encouraged by Jean Callendar, Philip Stockley, Pauline Hanlon and Tracy Ball, who advocated strongly for their patient groups to receive equitable resources and treatment compared to the men, encouraged me to involve nursing staff in contributing to the staff rated data and who model good psychological responses to women's anger on a daily basis.

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CHAPTER 1: INTRODUCTION

1.1 Terminology

The term 'learning disability' is commonly used throughout the United Kingdom to refer to those meeting the following criteria: i) significantly sub-average intellectual ability; ii) social functioning which is significantly sub-average in two or more areas, taking into account age and context; and iii) both of which were present from the developmental period, i.e. under the age of eighteen This definition is compatible with those used by the International Classification of Diseases (ICD-10), Diagnostic Statistical Manual (DSM-IV) and American Association on Mental Deficiency (AAMD), as well as that used by the British Psychological Society (British Psychological Society, 2001). However, this term is not used elsewhere, and excludes a range of other conditions. In the United States the equivalent term would be 'mental retardation' and in Australia 'intellectual disability' is used. The term 'learning difficulties' as used in the United Kingdom and United States refers to more specific difficulties in learning, or to specific cognitive impairments, such as dyslexia, or dyscalculia, without the presence of more global deficits such as is required to meet the 'learning disability/mental retardation' label.

The term 'developmental disability' can refer to conditions such as cerebral palsy, dyspraxia, attention deficit hyperactivity disorder and Asperger's Syndrome, without global impairment of intellectual functioning. Although the hospital where this study was based considers itself to offer a specialist 'learning disability' service, in fact the forensic service accepts a small number of admissions of selected people with such 'developmental disabilities', including those on the autistic spectrum, and those with other conditions associated with developmental delay and intellectual impairment, but

with IQs in the 'borderline' range of intelligence (full scale IQ of between 70-85) (American Psychiatric Association, 1997), a higher range of IQ than those accepted commonly by learning disability services. Thus the term 'developmental disability' may be a more accurate term for the participants of this study. This is defined in the United States Developmental Assistance and Bill of Rights (2000) as follows:

1. the disability is attributable to a mental or physical impairment, or combination of mental and physical impairments;

2. the disability is manifested before the individual attains age 22;

3. the disability is likely to continue indefinitely;

4. the disability results in substantial functional limitations in three or more of the following areas of major life activity: self care, receptive and expressive language, learning, mobility, self-direction, capacity for independent living, economic self sufficiency; and

5. the disability reflects the individual's need for a combination and sequence of special, inter-disciplinary or generic services, individualised supports, or other forms of assistance that are of life long or extended duration and are individually planned and coordinated. .

This study considers women as opposed to men, and will use that term, rather than 'females'. Although the latter seems to be commonly used by clinicians in forensic service provision, the author prefers the term 'women' as implying a more participatory or inclusive way of talking and writing about this half of the population, rather than the more objectifying, biological term 'female'. The vast majority of feminist research of a participatory nature uses the word 'women' and this author has also adopted this term intentionally, despite the fact that the project was not developed from within a feminist research paradigm.

The merit of using such differential terminology has been debated at length over many years, given the priority attached in many countries to valuing people equally, regardless of their colour, race, gender, status or ability. Although one important aspect of terminology and labels is to ensure respect for the group to which referred, other important reasons for using meaningful and well understood terms are to ensure appropriate 'gatekeeping' of specialist services, to ensure appropriately targeted and effective treatment and interventions, and most relevant in this context, to ensure research can be accurately compared and contrasted across populations and studies.

1.2 Policy and Context

The literature will be reviewed in more detail in the next section. However, the context in which this study was developed is important and will be described here. At an international level, several studies have indicated the high prevalence of psychiatric problems and of aggression in forensic settings for women (Maden, Swinton & Gunn, 1994; Parsons, Walker & Grubin, (2001); Novaco & Thacker, 1990). Other academic work has considered whether such data are 'real', reflecting on social construction and social causation of diagnosed psychiatric disorders (Carlen, 1987; Carlen, 1988; Shaw and Proctor, 2004; Walklate, 2000). There can be no doubt that anger is central to a significant proportion of violence within families, both in the form of 'domestic violence' (violence between intimate partners, predominantly enacted by men against women), and in the form of child abuse (Dobash and Dobash, 1984; Gardner and Gray, 1982; Novaco and Taylor, 2003). In England, several recent Department of Health and Her Majesty's Prison Service publications have indicated the importance of women's needs being considered separately from those of men, and have resulted in single sex accommodation once again becoming the norm in mental health services, sensitivity

being used in considering women's experiences of abuse, serious attention being given to women in situations of domestic violence, and women's forensic services considering the differing criminogenic needs of their client group (Department of Health, 1999; Department of Health, 2002; Department of Health, 2003; Kesteven, 2002; Stafford, 1999). These reports informed the development of the women's in-patient forensic service in which this project was based.

1.3 The Evidence Base for Working with Offenders

Taylor (2002) described the rationale for his own study of the assessment and treatment of a whole population of men in the forensic in-patient service in the same specialist disability National Health Service Trust in which the current research project was based. He described the range of offences for which this population have either been convicted, or which have caused significant risks to their placements in community settings, resulting in detention in hospital either under criminal or civil sections of the Mental Health Act (1983). Violent offences were the second most frequent type of offence being the index offence for 17% the men in his service, but are the most frequent type for the women, being the index offence for 43% of the sample in our study. Taylor describes the process by which the Trust's 'Department of Psychological Therapies and Research' has worked towards the development of a comprehensive range of offence focussed treatment programmes, based on the existing evidence base for effective interventions with offenders. These programmes are aimed at reducing risks of further re-offending and thus enhancing the chances of rehabilitation from hospital back to community settings. McGuire (1995) summarised the existing evidence base about ten years ago and the forensic service psychological programme studied here is based on the criteria detailed below, with appropriate adaptations for the

population with their developmental disabilities. Meta-analysis (Andrews, 1986) suggests that interventions most likely to work should:

- use a cognitive behavioural model with multi-modal delivery, orientated towards skills development;
- be responsive to individual needs in terms of learning style and preferences of both clients and therapists;
- focus on clients' criminogenic needs which are proximal rather than distal to the offending behaviours;
- adjust 'dosage' according to levels of risk, with those judged to be higher risk requiring longer periods of treatment and more frequent intervention sessions.
- ensure programme integrity by addressing the potential for therapeutic drift, relapse and therapist non-compliance (with respect to consistent delivery of treatment programmes).

Following such guidelines, recidivism rates are likely to be reduced by between 12 and 24% (McGuire, 1995; Skett, 1995), if treatment is delivered in community settings, where it can be seen to be most effective.

The development of offence focussed programmes in this NHS Trust has made concerted attempts to address programme integrity, initially in the context of group based sex offender and fire-setter treatment programmes (Taylor, Thorne, Robertson & Avery, 2003; Taylor, Robertson, Thorne, Belshaw & Watson, 2006). Hollin (2000) sets out guidelines which may avoid threats to such integrity, and it was these guidelines which influenced the development of the Northgate offence focussed treatment programmes. These guidelines include the following:

- interventions based on sound theoretical frameworks that have empirical evidence to support them;

- ensuring that therapists implementing the interventions are well trained in both theory and delivery aspects;
- use of manuals and protocols to guide the delivery of interventions;
- clinical and organisational support for therapists, including supervision and access to other resources; and
- involvement of independent assessors to evaluate the quality and outcomes of the interventions.

1.4 Anger in People with Developmental Disabilities

Several studies have described the way in which aggression impacts on the lives of people with developmental disability, with implications for prioritising treatment. Aggression is the commonest reason for psychotropic medication to be prescribed for people with developmental disabilities, though not necessarily to beneficial effect (Aman and Singh, 1991; Matson, *et al.,* 2000). Levels of assault are higher in learning disability hospitals than they are in psychiatric services (Kiely & Pankhurst, 1998). Rates of aggression are high (Bromley & Emerson, 1995; Kiely & Pankhurst, 1998) and are the commonest cause for people with learning disabilities to lose their homes and be admitted to an institution (Lakin, Hill, Hauber, Bruininks, & Heal, 1983). Most importantly, anger has been found to be a predictor of aggression in forensic populations and in populations with developmental disabilities (Novaco, 1994; Novaco & Taylor, 2004; Novaco & Renwick, 2003).

1.5 Model of anger treatment

It is not difficult to think of people, such as the women protestors at Greenham Common, who utilised their sense of anger in functional, political ways to shape social

policy and national boundaries. Women who appeared to deal with their angry feelings in less functional ways also come to mind, such as the women members of the Bader Meinhof gang who took part in terrorist activities, or the Northumbrian member of the British suffragette movement, Emily Wilding, who threw herself at the feet of the King's horse and died four days later "having graduated to the militant wing which was making itself beastly to the British male....a woman of heroic, perhaps excessive temperament, she was several times imprisoned; went on hunger strike; underwent the pain and indignity of force feeding; threw herself from the gallery of Holloway gaol onto the safety net below and concealed herself in the precincts of the House of Commons with the aim of interrupting its debates.....If only she had been born a little later she would have made an excellent and lively Member *(of Parliament)*", (Grierson, 1976, pp.148-9).

The regulation of anger expression, an 'affective skill', can become a clinical problem (Howells, 1988). Animal studies suggest that two kinds of provocation elicit aggressive attack. These could be classified as 'defensive' and 'offensive' and are respectively elicited by threat and danger, and by dispute over control of resources or by within-species dominance relationships (Blanchard & Blanchard, 1984). These patterns of animal behaviour could also be construed as being evident in humans. Early accounts of anger systems (Hall, 1899; McKellar, 1949) identified two categories of provocation: 'interference with pursuit of goal' and 'threats to self-system'. These concepts were confirmed to some extent by Averill (1983) who ascertained that major triggers for anger in everyday life were social and interpersonal. Again, it is not difficult to think of well publicised women who have illustrated this point – Lorena Bobbett who dismembered her husband in the USA, and the three women who angrily

testified in court against Jeffrey Archer after he used them in various ways (sexually, socially and as an employer) and then discarded them at his own convenience.

The most well defined and researched theoretically based model of anger is that of Novaco (1975, 1994). Novaco's cognitive behavioural model of anger, and its clinical application have been evaluated, particularly with specific clinical and forensic populations (Black & Novaco, 1993; Chemtob, Novaco, Hamada & Gross, 1997; Cullen, 1993; Taylor, Novaco, Gillmer, Robertson & Thorne, 2005), as opposed to student populations or perpetrators of domestic violence. It takes into account pre-disposing, precipitating and maintaining factors as well as internal (cognitive and physiological) and external environmental factors, as well as behavioural reactions (see Figure 1). Designed to be used with individuals, it requires systematic assessment, leading to an individually tailored formulation which shapes the subsequent individually tailored treatment sessions. These treatment sessions utilise a range of behavioural and cognitive techniques, applied latterly in combination via the 'stress inoculation' paradigm originally described by Meichenbaum (1985) in the context of anxiety work.

1.6 Rationale for the Women's Anger Treatment Project

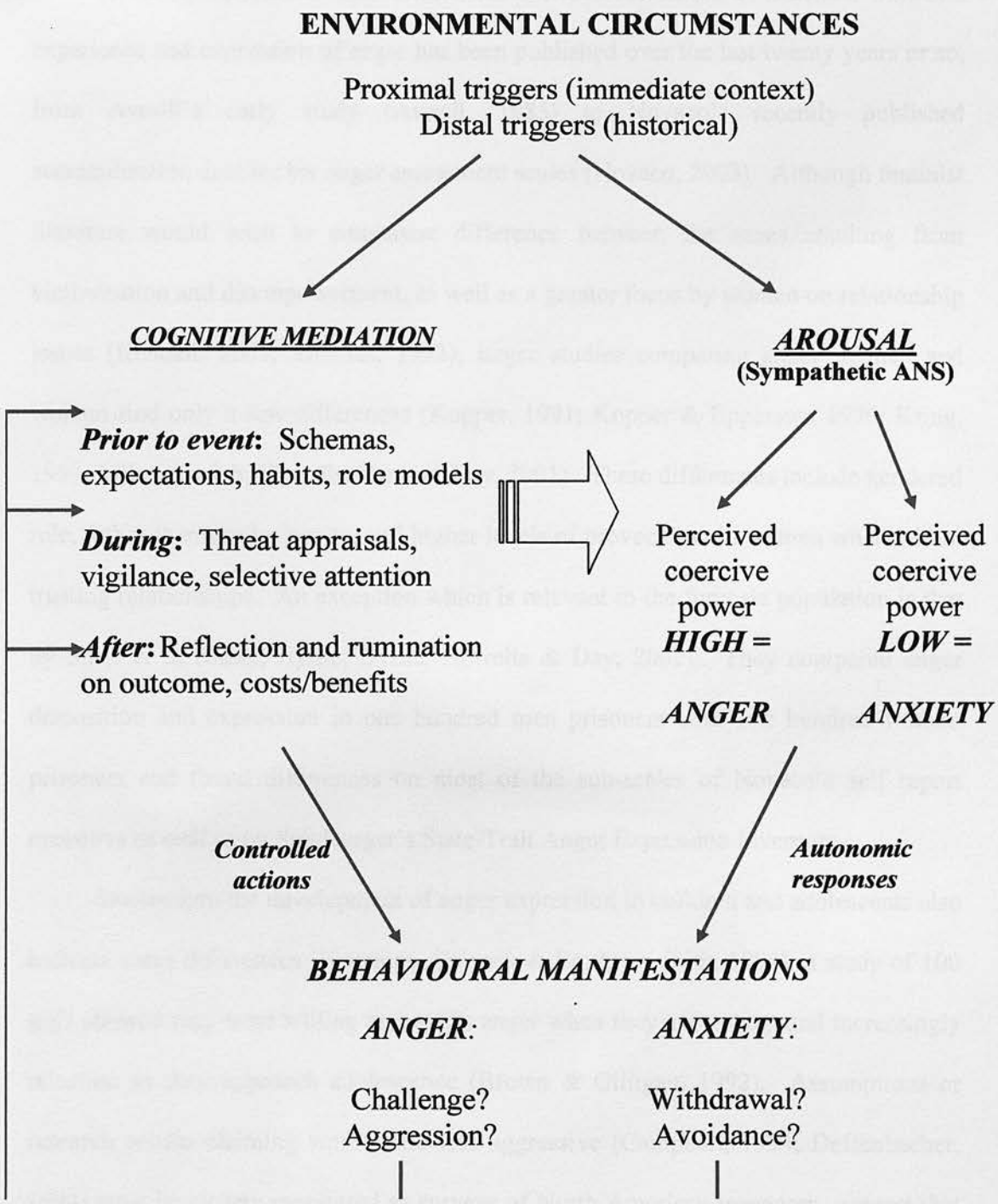
At the conclusion of the first comprehensive study of women's anger in natural settings (Thomas, 1993), the author, one of the most prolific writers on the subject, notes that among questions that remain unanswered is the consideration of "[w]hat therapeutic interventions are most effective with women whose high anger proneness or maladaptive anger management has already resulted in pathology" (p. 260). Whilst a large, externally funded anger assessment and treatment research programme was taking place with the men in the forensic service, supported by several research assistants, the women's forensic service watched impatiently. Having seen the way in which the men

seemed to engage with the therapy on offer, nurse managers and psychiatrists were keen to give the women patients the benefit of such a treatment, particularly given the high rates of aggression within their service. It has been repeatedly noted that evidence based solely on men, as is much of the forensic evidence base, should not be assumed to be applicable to women due to the different patterns of offending, risk factors and recidivism (Carlen 1987, 1988). In addition, there is a dearth of good research into the emotional lives of people with developmental disabilities, particularly in relation to outcomes of psychotherapy (Arthur, 1999). Thus an appropriately designed treatment outcome study was initiated to ascertain whether the women also benefited from the adapted Novaco anger treatment programme.

Whilst Novaco's model of anger, was presumably intended to be gender neutral, the main research project on which this research project has been based involved a sample of men. There have been a number of studies in the clinical field looking at gender differences in experience and expression of anger, but there has been little work considering whether the application of cognitive behavioural treatment approaches largely developed for men are effective also for women. This smaller research project therefore attempts to improve the evidence base, in so far as is possible, in an area with a paucity of research involving women as participants (Stanko, 1995; p.94).

Figure 1:

NOVACO COGNITIVE MEDIATION MODEL (Novaco, 1975, 1976, 1994)



CHAPTER 2: TREATMENT OF ANGER IN WOMEN WITH A DEVELOPMENTAL DISABILITY

2.1 Introduction – the search for gender difference

A variety of research into differences between the nature of men and women's experience and expression of anger has been published over the last twenty years or so, from Averill's early study (Averill, 1983) to Novaco's recently published standardisation data for his anger assessment scales (Novaco, 2003). Although feminist literature would wish to emphasise difference between the sexes resulting from victimisation and disempowerment, as well as a greater focus by women on relationship issues (Kendall, 2003; Thomas, 1993), larger studies comparing anger in men and women find only a few differences (Kopper, 1991; Kopper & Epperson, 1996; Kring, 1999; Milovchevich, Howells, Drew & Day, 2001). These differences include gendered role, rather than gender *per se*, and higher levels of provocation in women when within trusting relationships. An exception which is relevant to the forensic population is that by Suter *et al* (Suter, Byrne, Byrne, Howells & Day, 2002). They compared anger disposition and expression in one hundred men prisoners with one hundred women prisoners and found differences on most of the sub-scales of Novaco's self report measures as well as on Spielberger's State-Trait Anger Expression Inventory.

Studies into the development of anger expression in children and adolescents also indicate some differences (Hausman, Spivack & Prothrow-Stith, 1994): a study of 100 girls showed they were willing to express anger when they are young, and increasingly reluctant as they approach adolescence (Brown & Gilligan, 1992). Assumptions or research results claiming women are less aggressive (Campbell, 1994; Deffenbacher, 1994) must be closely monitored as surveys of North American teenagers suggest that

45% have engaged in violent behaviour at least once (Benson & Roehlkepartain, 1992). Campbell (1994) asserts that aggression feels good to men, involving power and control, whilst Thomas (1995) suggests aggression represents loss of control for women, as well as guilt regarding distress for others, and risk of getting physically hurt. These are areas of research which could be developed further both within normal populations and within populations of young people with a learning disability.

Anger treatment or management studies focussed on women in clinical settings prove hard to track down, although there are several studies considering effectiveness of anger management in the forensic field (Allan, Lindsay, McLeod & Smith, 2001; Fitzharding, 1997; Kendall, 2003; Smith, Smith & Beckner, 1994). The first of these described work with offenders with learning disabilities and will be detailed below, whilst the other three took place in prison settings and obtained positive outcomes. Anger is mentioned as a related issue in studies of abuse, eating disorders, chronic pain, borderline personality disorder and depression (Burns, Johnson, Mahoney, Devine & Paul, 1998; Kelly, 1988; Lunsky, 2003; Lunsky and Benson, 2001; Meins, 1993; Newman & Peterson, 1996; Reiss and Trenn 1984; Shaw & Procter, 2004), but is seldom considered as an emotion worth treating in its own right.

The study reported in this thesis was not designed with a particularly feminist agenda, although current UK mental health policy does emphasise women's rights to separate specialist mental health services (Department of Health, 2002b; 2003), justified by their common experiences of domestic abuse as victims of men. However, Novaco & Taylor (2003) also reported the relationships between childhood domestic abuse on men with developmental disabilities and anger problems. Feminist researchers encourage less objectification of research participants and the data they present, suggesting more participatory, qualitative methods (Barker, Pistrang & Elliot, 2002;

Kendall, 2000; Reason & Rowan, 1981), although this kind of approach may actually be justified by the need to work sympathetically with disempowered and victimised participants of either sex, rather than by sex or gender *per se*. A number of reports regarding women in criminal justice systems and in High Security Hospitals in England had highlighted the fact that secure establishments and secure mental health services for women should ensure they address women's specific needs, and that treatment is suitable for them (Cooke, 1987; Correctional Services of Canada, 1995; Department of Health, 1999; Women in Special Hospitals, 1999). In their review of secure mental health services for women, Lart, Payne, Beaumont, MacDonald & Mistry (2000) suggest that more qualitative work should be carried out, and emphasise the need for all studies using mixed populations to give figures broken down by sex. Such participatory approaches have been apparent in disability research also, making serious efforts to include those it seeks to describe, and to help not only in terms of listening carefully to their perspective, but in terms of designing the research and presenting results creatively (McCarthy, 1998).

Additionally, concerns have been expressed that the evidence base in forensic services is predominantly based on male populations (Carlen, 1988; Crump, 1995; Faragher, 1981; Walklate, 2000) and that it should not be presumed that exactly the same interventions would be effective with women. The current study was planned to complement and replicate, as far as was possible, the study into assessment and treatment of anger carried out with the men in the hospital where the author was based (Taylor, Novaco, Gillmer & Thorne, 2002; Taylor & Novaco, 2005), but with women participants. Having noted the context of research into anger and gender, and the feminist context, this chapter will now focus on the evidence base regarding expression, experience and treatment of anger within populations of men and women with

developmental disabilities, identifying research which includes and concentrates on women.

2.2 Treatment of aggression in men and women with developmental disability

A review of psychological methods for reducing aggression in people with learning disabilities from a behavioural perspective was published by Whitaker (1993). His inclusion criteria were as follows: a) subjects were identifiable as having a learning disability or mental retardation; b) the target behaviour of the study included aggression; c) the study used at least an AB design. Unfortunately, Whitaker was unable to detail the gender of participants in every study, though several were identified as pertaining to women or girls: 25 of the studies he reviews were published between 1971 and 1986 and included women. He subdivides the studies by participant characteristics and by type of behavioural intervention and of the 78 studies, 34 included participants with a mild-moderate level of learning disability. Of these, 73 focussed on staffed settings, four in unstaffed accommodation and(in each case this was the parental home) 32 were with adult participants. He concludes that behavioural interventions can be effective in reducing aggression, but that effectiveness requires consistency of responses and high staffing levels. In 38 of the studies the interventions took place over more than four hours per day. Nine of the studies utilised ecological (environmental) manipulations as the main intervention; twelve utilised positive programming including functional communication training, social skills training and self control techniques; fifteen studies used non-punitive contingency management methods such as extinction or differential reinforcement of other behaviour; and twenty studies utilised punitive intervention strategies including over-correction, response cost and aversive stimulation. Whittaker notes twelve studies also used 'time out from

reinforcement' which he categorised as a punishment also. Ten studies used mixed punitive and non-punitive intervention strategies.

Whitaker refers to Novaco's work on self control for anger and aggression under the intervention sub-category of "Self Control" but notes concerns from other authors regarding the need for a minimum level of language ability required (Carr, Robinson, Taylor & Carlsson, 1990; Whitman, 1990) as well as ability to use imagery (Pressley, 1990). He further sub-divides self-control into 'contingency control' (pg 4) and 'cognitive change' (pg 4) noting that the former are mainly used with subjects with mild-moderate learning disabilities. However, results do not seem to be consistent and he speculates that variables other than IQ may determine success with such methods. He considers the two dismantling studies published neither of which conclusively demonstrate the additional benefits of cognitive change to simpler behavioural methods (Benson, Johnson-Rice & Miranti, 1986; Black, Cullen, Dickens & Turnbull (1988); Harvey, Karan, Bhargave & Morehouse, 1978). A further study which worked with people with mild-borderline learning disability and worked for up to a year seemed to gain better results using cognitive behavioural techniques (Golden & Consorte, 1982).

He points out that where the frequency of the aggression is low (less than once a day), and where the intervention took place outwith a staffed setting, effectiveness becomes problematic (Emerson, Cummings, Barrett, Hughes, McCool & Toogood, 1988). Whitaker notes that behavioural methodology involving altering of antecedents, training alternative behaviours and contingency management approaches has been most successful, but that a trend seemed to be developing in the direction of functional communication training and altering routines to meet individual needs. Several participants were identified as being on the autistic spectrum, and this latter approach would no doubt have been beneficial for them. He did not discuss gender, although

such tailored interventions based on individualised assessment of need might excuse this. This very detailed review does address the practical implications of trying to implement good behavioural practice in a family home, given the context of care in the community, and notes the lack of studies on people with learning disabilities who live on their own. However, he fails, until the last sentence of the review, to set this in the context of policy over the last few decades whereby people with developmental disabilities have fought to empower themselves and thus to exercise clear choices over the help and supports they receive. Whitaker is right to point out that philosophical soundness does not equate to evidence for effectiveness, but other authors have described the need to recognise that people with developmental disabilities have emotional lives just as do the rest of the population (Arthur, 1999; Bender, 1993) and therapists have described a more collaborative and effective approach to working with this client group (Kroese, Dagnan & Loumides, 1997). Whitaker's conclusions would support further cognitive behavioural research with those more able people with developmental disabilities and those who do not have high levels of staff support.

One example of a single case study applying behavioural and cognitive methodology for a woman with a mild learning disability exhibiting low frequency aggression was published by Whitaker himself (Whitaker, 1992). The woman described attacked a resident or staff member about twice a month. Hospital treatment had been necessary for a victim on one occasion. Observations and staff recordings did not indicate any consistent antecedents so a cognitive behavioural approach was adopted: the experimenter met her twice a month to try to help her understand her own anger and develop coping skills such as relaxation, problem solving and self instruction. Over nine months there was no overall decrease in the frequency of aggression, although there had been a decrease during the first four months. A differential schedule of

reinforcement was introduced with a seven day interval and a pub lunch providing the reinforcement for that period of 'other behaviour' without aggression. This gave little benefit over the next four months, and the schedule was adjusted. The interval was halved and a reinforcer of a gift voucher was introduced at that time (after three days) for a period without aggression. Thereafter aggression decreased significantly and staff reported her use of anger control techniques, such as assertive communication. The author notes that the woman's verbal ability allowed her to understand the schedule of reinforcement devised, which might be less comprehensible for someone less able. She had also continued to learn anger control techniques and the shorter interval differential schedule of reinforcement may have helped motivate her to use these. This case study is a good example of routine clinical psychology practice in the U.K. today, where psychologists work through care staff and seldom have time to offer more frequent sessions of psychotherapy. Whether this improves or detracts from the outcomes is unclear. Although current policy suggests that people with developmental disabilities should have access to psychological therapies equivalent to that of the average member of the population (Department of Health, 2002a), some researchers have suggested that people taking part in group treatment have better outcomes when accompanied by staff (Rose, West & Clifford, 2000) and can benefit equally well from interventions delivered by care staff (Willner, Jones, Tams & Green, 2002).

A further overview of the research into physical aggression in people with intellectual disability (Allen, 2000) makes the following points. Firstly, behavioural analyses are too often concerned with immediate antecedents and should extend their view to incorporate more holistic assessment of person-environment fit (LaVigna & Donellan, 1986; LaVigna, Willis & Donnellan, 1989). Secondly that there is poor evidence of the effectiveness of the most commonly prescribed treatment for aggression

in people with learning disabilities, that is, neuroleptic (or anti-psychotic) medication (Aman & Singh, 1991). However, recent evidence suggests some more specifically targeted medications for aspects of aggression and mood disorder may have some effects (Reiss & Aman, 1998) and he recommends that, given the fact that aggression may be both internally and externally driven, optimum interventions may require a combination of pharmaceutical and behavioural interventions (see also Taylor, 2002). He suggests that combined interventions should be more empirically guided and better planned. Allen notes, thirdly, that pharmaceutical research is lacking in any report of social validity of outcomes, and recommends that this be rectified. A recent report detailed below (Lindsay *et al*, 2004) suggests that the lower rates of re-offending in a community sample of women offenders with developmental disabilities, by comparison with their male counterparts, combined with their higher rates of diagnosed mental illness, could be attributable to successful treatment of that illness, both pharmaceutically and psychologically, but detailed studies addressing this question are clearly needed. Fourthly, due to the scant evidence base in this area, Allen recommends that where reactive management strategies such as control and restraint, are being utilised, staff should be rigorously trained in their safe application. This may be driven by legal requirement rather than scientific motive.

Anger and aggression can be construed, as mentioned above (Jahoda, Trower, Pert & Finn, 2001; see also Kelly, 1988), as functional and legitimate responses to the environments, conditions and social forces people experience, and thus researchers have an ethical responsibility to address these broader issues. Allen recommends that where reactive strategies such as control and restraint, are being used, staff should be rigorously trained in their safe application. This may be driven as much by legal requirement as by scientific motive.

Overall there has been no tradition of considering women as a separate group within this mainly behavioural model of intervention research, and given the individualised assessment and interventions implied by this school of psychology, this is perhaps understandable and acceptable.

2.3 Anger in men and women with developmental disabilities

2.3.1 *Assessment Issues*

The outcome studies referred to in the previous section used observable aggressive behaviours as dependent variables. The outcome studies referred to in the next section (*2.3.2 Treatment studies*) with its focus on anger as an emotion, rather than aggression as a behaviour, used dependent variables which varied more widely including anger diaries, standardised self-report assessment tools of anger disposition or of anger provocation, imaginal vignettes designed to evoke provocation, staff reported aggression, use of adaptive coping strategies and self esteem inventories. In 1994, Lindsay et al reported that it is possible to measure the emotions of people with developmental disabilities with some reliability (Lindsay, Michie, Baty, Smith & Miller, 1994). Novaco (2003), whose assessments have been validated for both intellectually disabled, mentally disordered and non-disabled populations, describes some of the particular difficulties with measuring changes in anger associated with forensic samples using self report measures (see also Taylor & Novaco, 2005). Some in-patients or clients in criminal justice settings may minimise levels of reported anger in the hope of earlier discharge; for others, increased awareness of anger may result in raised rather than lower self report scores. Novaco also notes that the psychological construct of anger has many manifestations, and that there must therefore be many ways of measuring it. He recommends that clinicians seek convergence or triangulation

across several types of measure, and reported that clinician ratings of anger were significantly related, concurrently and prospectively, to assaults by patients in a sample of 4000 psychiatric patients. However, limited convergence has been reported between these methods for people with an intellectual disability, with the highest level of convergence found between self report and interview (Bramston & Fogarty, 2000), and thus it is still necessary to use a range of assessment tools in order to develop individualised formulations of anger. Ratings by others were found to be less discriminating in people with intellectual disabilities than had been hoped for (Baker & Bramston, 1997; Benson & Ivins, 1992). Bramston and Fogarty suggest that staff tend to rate higher levels of emotion in people with intellectual disabilities than self-ratings would suggest, either because they over-generalise between one emotion and another; because they fail to notice emotions in their clients; or because self-report is suppressed when the individual perceives that the emotion they are asked to report may be one of which people will disapprove.

Novaco and Taylor (2004) reported their large assessment study involving 129 men in a secure in-patient setting and confirmed that the Novaco Anger Scale and Provocation Inventory, as well as the Spielberger State Trait Anger expression Inventory (STAXI) had robust psychometric properties when used with this client group yielding good levels of internal consistency, inter-rater reliability, inter-correlations and validity. Further reports of outcome described other aspects of assessment which contributed to assessing effectiveness of the cognitive behavioural intervention (Taylor, Novaco, Guinan & Street, 2004; Taylor & Novaco, 2005) including an imaginal provocation test devised for this population and staff rated anger scales, as well as staff and participant ratings of competence and engagement.

Although there are assessment tools which have been devised with women in mind including the Anger Inventory designed for men and women who had been abused (Davis, 1990) and the Anger Situation Questionnaire (van Goozen, Frijden & Kindt, 1994) no studies in the field of developmental disability utilise any assessment, package of assessments or set of norms devised especially for women, and, given the inconclusive nature of the research exploring gender differences in the experience and expression of anger, perhaps this is to be expected.

2.3.2 *Treatment studies*

There have been three recent reviews of the literature on the treatment of anger in people with a developmental disability (Taylor, 2002; Taylor & Novaco, 2005; Whitaker, 2001), and prior to the most recent of these there were no studies with women as a focus. The following brief review of the relevant literature considers studies with women as a focus, a large study involving male in-patients and studies of men only, or men and women, which took place in the community. Table 1 summarises these at the end of this chapter.

There has only been one published outcome study focused on women with a developmental disability, although it was not based on a women only intervention, but a mixed gender group format using Novaco's cognitive behavioural approach for 40 sessions over 9 months (Allan, Lindsay, McLeod & Smith, 2001). The authors reported outcomes for five women in the community who had all displayed assaultive behaviour ranging from 2 - 29 recorded assaults each during their adult lifetime. Four had been charged by the police. The main outcome measures used were a locally adapted version of the Novaco Provocation Inventory completed at regular intervals during treatment and follow up, and rates of re-offending. Results showed little change in anger

reactivity after 12 sessions of relaxation work, but reductions started to be evident after cognitive work had been introduced by the 6 month stage. One woman failed to respond during and immediately after treatment but showed reduced anger during the fifteen month follow up period, whilst three maintained lower levels of anger reactivity through fifteen month follow up. The authors were able to report follow up in terms of further violent behaviour over a period of between 2 and 8 years due to their continued local clinical involvement, and despite the fact the rehabilitation was not completely without difficulty for some individuals, there had only been one further charge of assault, and this was during the first three months of treatment after which things improved considerably.

The authors partially attributed the ongoing difficulties the women experienced to relationship difficulties and histories of abuse, and note that they had also received treatment in this respect prior to doing work on anger problems. Despite the authors stating that they acknowledged their women clients' right to feel angry about some of these issues, the anger management groups were mixed gender which may have made it difficult for the women. Perhaps this was particularly so at the start before trust developed between group members, and perhaps this could have accounted for the delay in reductions in anger scores rather than the lower effectiveness of the relaxation work. Although they acknowledge the weaknesses of the study, the methodology is not inappropriate given that this is the first paper published about this particular group.

Several other studies have been recently published, some of which were based on one large study of the in-patient population, made up of men (Novaco & Taylor, 2004; Taylor, Novaco, Gillmer & Thorne, 2002; Taylor, Novaco, Gillmer, Robertson & Thorne, in press; Taylor, Novaco, Gillmer & Thorne, 2002; Taylor, Novaco, Guinan & Street, 2004). These publications pertain to one large study, this being one of the very

few controlled trials of treatment in a population with developmental disabilities. Having established that the psychometric properties of the measures adopted were robust, using a sample of 129 men (Novaco & Taylor, 2004), 40 adult male in-patient participants were identified who met the following inclusion criteria: (a) between 18 and 60 years of age; (b) full scale IQ between 55 and 80; (c) detained under sections of the Mental Health Act 1983; (d) self-report total score ≥ 90 on the Novaco Anger Scale (Novaco, 1994); and (e) self-report total score ≥ 55 on the Provocation Inventory (Novaco, 1988). Participants had also identified anger problems via a semi-structured interview and inclusion had been approved by their Responsible Medical Officer as forming a useful part of their treatment plan. The mean Full Scale IQ for the sample was 69.5 and the mean age was 29.5 years. Exclusion criteria were as follows: (a) presence of an active (uncontrolled) Axis I mental disorder – DSM -IV (American Psychiatric Association, 1994); (b) presence of epilepsy that was judged to be intrinsic to the patient's anger/aggression problems; and (c) plans for discharge or transfer during the 6-month period from the beginning of treatment.

Two groups were randomly selected and balanced in case of discrepancies, so that effectiveness of the intervention could be measured by comparing outcome measures for the two groups. One group (n=20) were allocated to treatment and the other (n=20) to a waiting list control group. For ethical reasons the control group was also offered treatment but at a later date, as therapist resources became available. Treatment had to be offered to cohorts of ten individuals at a time as therapist numbers were limited. Detailed comparisons of these cohorts also established that they were no significant differences and that the outcome data could therefore be combined. Consent was carefully sought from those who met criteria and they were offered individual

cognitive behavioural treatment for anger, adapted from Novaco's stress inoculation package (Novaco, 1975, 1993). Treatment was delivered by experienced therapists working from a manual and receiving weekly supervision from the lead researcher, thus enhancing treatment integrity. Treatment took place over eighteen bi-weekly sessions usually on the hospital ward. Nursing staff were closely informed about progress or accompanied patients in sessions on occasions. Homework tasks were required and support from staff sought for this. (See Table 3 for further details of sessions and materials; see also Taylor & Novaco, 2005 for details). Results were evaluated via self report and staff rated measures, and included details of anger and aggression as well as details of engagement and which elements were helpful and which competences participants developed.

Taylor's research project has been particularly thorough, with outcomes having been reported in a series of publications using a range of measures from self reported state and trait anger, anger disposition, anger reactivity and anger control, to staff rated anger and aggression, to file based assault data, to patient and staff views of competency on various elements of the treatment package. Unusually in this field, the research design and controlled methodology ensured adequate power to use a range of analyses of variance and linear trend analyses to explore results. Results indicated significant differences between the two groups in linear trends of reductions in anger disposition, as measured by the NAS total (Taylor, Novaco, Gillmer, Robertson & Thorne, 2005) which were maintained at follow up, mainly accounted for by Arousal as measured by the NAS, which also reduced significantly. Anger expression as measured by the STAXI approached statistical significantly lower scores perhaps because of the reductions in scores between baseline and treatment. There was also a significant reduction in anger reactivity as measured by the Provocation Inventory, with the

Unfairness/Injustice sub-scale evoking the most intense anger and reducing significantly in the Anger Treatment Group (Taylor, Novaco, Gillmer & Thorne, 2002). Staff rated anger characteristics as measured by the Ward Anger Rating Scale (Novaco, 1994) over the previous seven days provided only limited evidence for effectiveness of treatment (Taylor, Novaco, Gillmer, Robertson & Thorne, 2005), with statistically significant reductions in scores only reached for individual items including 'impatient/frustrated' and 'bitter/resentful' (Taylor, 2002), although twice as many participants in the anger treatment group had scores which moved in the desired direction that was the case for the waiting list control groups. A specifically designed Imaginal Provocation Test also yielded good outcomes, with participants rating levels of anger in response to imagined anger provoking vignettes (Taylor, Novaco, Guinan & Street, 2004). A statistically significant difference between groups was found in anger reaction, behavioural reaction and anger composite sub-scales. In anger regulation differences were statistically non-significant but effect sizes were large.

In addition to calculating change using statistical methodology, Taylor also utilised Cohen's rationale for reporting effect sizes of changes in scores, finding medium to large effect sizes for most measures used (Cohen, 1992). Thus the overall results of this outcome study indicated that this adapted form of Novaco's cognitive behavioural approach to anger treatment is effective, and although results were not consistently statistically significant across all measures, use of Novaco's recommended triangulation approach to assessment meant that the treatment responsiveness observed had strong face validity. An additional interesting finding was that of some possible systemic or ecological effects mediated by the anger work being ongoing throughout the service whilst his control group awaited treatment, resulting in some improvement

whilst waiting. Taylor was also able to demonstrate that treatment responsiveness was not a function of higher IQ level.

Although some critics might suggest that the control group was not truly controlled but a "treatment as usual" control group and that this was a weakness of this study, researchers working in real clinical settings should find such results of greater relevance. Whilst the work could also be criticised for using participants who were all of a mild level of developmental disability in terms of IQ, this specificity makes the work easier to compare with other similar groups of participants, as much of the published work in developmental disability suffers from a lack of clarity about inclusion criteria, making comparability between studies and treatment approaches difficult. Interestingly, as noted above, within the ability range represented in this sample, IQ made no difference to outcome

Most other studies reported in the developmental disability field are of community samples. All report positive effects of cognitive behavioural anger treatment. Some anger treatment outcome studies with clients with a developmental disability, have included women, and may have involved people with anger problems simply identified when a group was on offer (Benson, 1986; Howells, Rogers & Wilcock, 2000; King, Lancaster, Wynne, Nettleton & Davis, 1999; Moore, Adams, Elsworth & Lewis, 1997; Rose, 1996; Rose, West & Clifford, 2000; Rossiter, Hunniset & Pulsford, 1998; Willner, Jones, Tams & Green, 2002), whilst others have included only men who were already involved with the criminal justice system (Lindsay, Allan, Parry, MacLeod, Cottrell, Overend & Smith, 2004; Lindsay, Allan, Parry, MacLeod, Smart & Smith, 2003). Results have focussed on the most effective elements of treatment rather than gender differences. Like the paper by Allan et al. (2001) all were based on a group, rather than individual, therapy format. Rose and colleagues (2000) report better

outcomes for those participants who were accompanied by staff to anger management groups in the community.

Nearly all of these studies adopt Novaco's cognitive behavioural model of anger as a basis for determining the treatment format. However, there is considerable variability in terms of the elements included in treatment, with some studies using only elements of such an intervention, for example, relaxation and self instruction for the purposes of controlled evaluation (Benson, Johnson-Rice & Miranti, 1986), and others incorporating self monitoring, relaxation, emotional recognition, self instruction, coping skills training and role play (Howells, Rogers & Wilcock, 2000; Rose, West & Clifford, 2000; Willner, Jones, Tams & Green, 2002). Even when elements of the interventions were comparable, length of treatment and frequency of sessions was not. Length of treatment ranged from 8 or 9 weekly sessions (Moore, Adams, Elsworth & Lewis, 1997; Rossiter, Hunniset & Pulsford, 1998; Walker and Cheseldine, 1997; Willner, Jones, Tams & Green, 2002) to 50 sessions delivered on a daily basis (Lindsay, Overend, Allan, Williams & Black, 1998). Length of sessions ranged from 40 minutes (Black and Novaco, 1993) to 2 hours (Howells, Rogers & Wilcock, 2000). Such variation in treatment approach makes direct comparison of outcomes difficult, although the generally positive results of these cognitive behavioural interventions might suggest that the length and frequency of treatment are less important than the multi-modal nature of the package. As described by Whitaker in his review of treatment for aggression (1993), three studies tried to look at whether added cognitive components improved outcome (Benson, Johnson-Rice & Miranti, 1986; Golden & Consorte, 1982; Harvey, Karan, Bhargave & Morehouse, 1978). All three found little benefit which was at odds with Novaco's original findings in a study into anger treatment (Novaco, 1975).

However, further dismantling studies could help to explore the finer details of what actually helps people to feel less angry and to control dysfunctional expression of anger.

Concerns are on occasion expressed that treatment of anger may serve as further devaluing of the experiences of vulnerable individuals (Jahoda, Trower, Pert & Finn, 2001; Kendall, 2001) and that violence and abuse of, particularly, women with disabilities take place in a context of structural and contextual power imbalances (Fawcett, 2002). Characteristics of the male samples in clinical studies of anger problems in people with developmental disabilities might also illustrate significant levels of abuse and disempowerment (Novaco & Taylor, 2003; Lindsay, Smith, Quinn, Anderson, Smith, Allen & Law, 2004), for these same reasons. Fawcett (2002) discusses the role of gender in abuse of older adults, institutional abuse, which also applies to people with disabilities, and the way in which the disability rights movement has appropriately used its anger to challenge medicalised perspectives and residential care practices of care and control, thus addressing some of these power imbalances. In fact cognitive behavioural treatment, as opposed to medical or narrow behavioural treatments, emphasises the normality and functionality of anger, and aims for more adaptive expression and control, with individual client and therapist working in collaboration. Jahoda's concerns (Jahoda, Trower, Pert & Finn, 2001) may relate to services for people with intellectual disabilities who refer clients for help with anger problems as identified by staff or carers rather than as identified by the individuals themselves.

2.4 Conclusions

The existing bodies of clinical or forensic research in developmental disability often neglect the question of gender differences in anger treatment, with the exception

of one published study (Allen, Lindsay, McLeod & Smith, 2001), perhaps because of the way anger fails to be perceived as an emotion worthy of clinical attention, and because most forensic research only includes male participants. Alternatively, it may be because the dominant psychological model for treatment of aggression has been behavioural, and such individual analysis of aggression and individualised treatment programmes may mean gender is less relevant. However, given the predominance of medical pharmaceutical approaches to treatment of similar aggression, where gender differences may be equally ignored, but could be important, it would seem that the neglect is probably not justifiable. Those with knowledge of anger research would be aware that few studies confirm significant gender differences in expression of anger, despite known differences in aggression, and could argue that separate studies are unnecessary.

Studies on assessment and treatment of anger conclude that a range of direct, self report and indirect measures should be used, although research would benefit from some standardisation in this respect. Staff ratings of anger whilst important, seem least reliable and valid, perhaps as much because of staffing patterns as because of the available instruments, and further developments in this area would seem important. There is an encouraging field of research of ever improving quality developing in anger treatments for people with developmental disabilities which mainly incorporates men and women, and on occasion focuses solely on men, but which seldom differentiates in terms of gender in relation to process or outcomes. Given the current recognition of women's differing needs both in terms of mental health services Department of Health 2002b), and in terms of treatment for criminogenic behaviours (Correctional Services of Canada, 1995; Her Majesty's Prison Service, 2000) this project will contribute to exploration of possible gender differences, regarding the forensic population of people

with developmental disabilities. Thus this represents a specific attempt to clarify differences experience and expression of anger for women and subsequently in outcome for women following an individual cognitive behavioural intervention which had been found to be effective for men in the same service.

Table 1: Publications addressing treatment of anger in people with a learning disability in chronological order.

N.B. Participants' gender colour coded: Yellow = men and women; blue = men; pink = women. Design grade: 1 = Systematic review including at least 1Randomised Controlled Trial (RCT); 2 = randomised controlled trial or controlled trial; 3 = Group controlled study without randomisation or comparison group ; 4 = Systematic study without randomisation or comparison group
. Setting: C = community; I/P = in-patient.

Authors & year	Design Grade	Participants	Setting	Treatment format	Duration	Dependent variable	Outcome and follow up
Benson B.A., Johnson-Rice C., & Miranti S.V. (1986)	2	Group study RCT; 37 men; 17 women ; Mild-moderate LD	C	Group therapy; self instruction v relaxation v problem solving v combined condition	12 weekly 90 minute sessions. 18 hours	Anger inventory; imaginal provocation; role play; aggression.	Significant pre-post reductions for all conditions on IP, role play and aggression; no differences between groups. Gains maintained at 4-5 weeks
Murphy, G., & Clare, I., (1991).	4	Case study 1 man; mild LD	I/P	Multi-modal staged individual and group therapy; self monitoring; social skills; coping skills; relaxation; token economy	Varied over 49 weeks.	aggression	Aggression fluctuated over intervention period, but recorded incidents of verbal and physical aggression reduced markedly so that S able to be discharged to staffed community facility
Whitaker, S. (1992)	4	Single case study; AB design; 1 woman	C	Behavioural anger control with schedule of differential reinforcement for non-aggressive behaviour.	Two sessions per month for 9 months; weekly then bi-weekly reinforcement added for further 13 months.	Staff records of aggression	Over nine months of CBT there was no overall decrease in the frequency of aggression, although there had been a decrease during the first four months. Schedule of reinforcement introduced with little improvement after four months; improvement after reinforcement schedule adjusted to provide more frequent reinforcement..
Rose, J., (1996)	4	Case series; 3 men; 2 women. Mod. – severe LD	C	Group therapy; relaxation, self monitoring, identification of	16 x 90min sessions. 12 hours.	Anger diary; anger logs.	Carers reported fewer aggressive incidents per month post treatment by comparison with 3 month baseline period.

				triggers, emotional recognition, coping skills training, self instruction			
Moore, E., Adams, R., Elsworth, J., & Lewis, J. (1997)	4	2 men; 4 women. Group study	C	Group therapy; emotional awareness; relaxation; role play; problem solving.	8 weekly x 90 min sessions 12 hours	Anger diaries and logs.	39% reduction in anger incidents compared with 2 week baseline period. 6 month informal follow up via informants – gains maintained.
Walker & Cheseldine (1997)	4	4 men; level LD unclear	C	Group therapy; social skills; relaxation; self instruction.	8 weekly 90 minute sessions.	Provocation Inventory	Three out of four reported reduced angry responses and increased use of coping strategies post treatment. No follow up.
Gilmour, K. (1998)	4	Group study; 6 men; 4 women	C	Cognitive behavioural anger management group with emphasis on communication and interaction.	Three staff training sessions. 18 weekly sessions in 3 stages (8 weeks, 4 weeks & 6 weeks).	Unspecified 'standardised and non-standardised' assessments; daily records of behaviour; facilitators' perceptions.	Increased use of communication, self advocacy, assertiveness and reductions in challenging behaviour. Increased knowledge in facilitators. Joint goal planning increased within service.
Lindsay, W.L., Overend, H., Allen, R., Williams, C. & Black, L. (1998)	4	Case series; 3 men; 2 mild LD; 1 severe LD	C and I/P	Individual therapy; tailored individually; self monitoring; emotional awareness; relaxation; role play; education.	From daily for 50 sessions to weekly for 26 sessions.	Self reported anger and aggression; observed aggression; Provocation Inventory; role played provocation	Marked reduction in observed aggression fc I/Ps; reductions in self reported anger and role play provocation scores for community subject. Follow up between 24 and 208 weeks. Two maintained gains; one deteriorated following transfer.
Rossiter, R., Hunniset, E., & Pulsford, M. (1998).	4	Case series; 4 men; 2 women	C=2 I/P = 4	Group therapy; education; self monitoring; relaxation; self instruction; role play.	8 x 90 min sessions. 12 hours	None.	Unclear. Clinical impressions suggested all but one benefited.

King, N., Lancaster, N., Wynne, G., Nettleton, N. & Davis, R. (1999).	4	Group study A-B; mild LD; 7 men; 4 women	C	Group therapy; relaxation, role play, problem solving, self instruction,	15 weekly sessions; 90 minutes	Provocation inventory; self esteem; carer ratings; behavioural checklist.	Significantly reduced anger scores post-treatment, increased anger control and self esteem; reduced anger scores reported by carers. Reductions in undesirable behaviours. Improvements continued and increased through follow up on most measures.
Rose, J., West, C., & Clifford, D. (2000).	2	Group study; 23 men; 2 women. CT	C	Group therapy; relaxation; self monitoring; identification of triggers; emotional awareness; skills training; self instruction; thought stopping; role play and video feedback.	16 weekly 2 hour sessions. 32 hours.	Anger inventory; self concept scale; depression inventory.	Significant reductions in anger and depression scales; non-significant improvement in self concept. 12 month follow up. Improvements maintained but levels of depression increasing during follow up.
Howells, P.M., Rogers, C. & Wilcock, S. (2000).	4	Case series; 3 men; 2 women	C	Group therapy; emotional awareness; self monitoring; identification of triggers; coping skills; role play with video feedback.	12 weekly 2 hour sessions. 24 hours over 18 weeks.	Anxiety scale and self esteem inventory	No conclusive evidence of treatment effect; aggression data unreliable and not reported. No follow up.
Allen, R., Lindsay, W.R., McLeod, F. & Smith, A.H.W. (2001)	4	Case series 4 women	C	Group cognitive behavioural therapy in mixed sex group.	9 months 40 weekly sessions	Anger provocation inventory, reoffending rates.	All scores reduced by 6 months into treatment and 4 maintained improvement at 15 month follow up. No further charges of assault following treatment.
Taylor, J.L., Novaco, R.W., Gillmer, B., & Thorne, I. (2002)	2	Group design. RCT N = 20 men, mild LD	I/P	Individual cognitive behavioural therapy guided by manual developed from Novaco's model.	18 bi-weekly sessions.	Anger provocation inventory	No significant difference on anger reactivity between groups, but significant decrease in treatment group after treatment. Staff rated anger lower on 6/7 sub-scales; 2 statistically significant.
Willner, P. Jones, J., Tams, R. and Green, G. (2002)	2	Group design; 5 women and 9 men	C	CBT based anger management group; brainstorming, role play,	9 x 2hour sessions	Anger provocation inventories,	Treated clients improved with medium effe size reported on both self and staff rated anger. Effect size between groups was larg

				homework, coping skills		self and staff rated.	Degree of improvement correlated with verbal IQ. Treated clients showed further improvement at 3 months.
Lindsay, W.R., Allen. R., MacLeod, F., Smart, N. & Smith, A. (2003)	4	Case series. N = 6, mild LD.	C	Group cognitive behavioural therapy in mixed sex group. Education; relaxation; identification of angry thoughts; role played problem solving.	9 months 40 weekly sessions	Anger provocation inventory, re-offending rates. Anger provocation via role play. Weekly diary.	Improved post treatment on self report and behavioural measures, as well as on video rated responses to provocation role plays. Improvements o self rated anger and video ratings maintained at 15 month follow up. No violence for 4 years following treatment
Lindsay, W.L., Allan, R., Parry, C., Macleod, F., Cottrell, J., & Ovrend, H. & Smith, A. (2004)	2	Group study, controlled trial. N = 33 men and 14 women, mild LD.	C	Group cognitive behavioural therapy in mixed sex group; education; relaxation; identification of angry thoughts; role played problem solving.	9 months 40 x 1 hour weekly sessions	Anger provocation inventory, role play, weekly diary, provocation; re-offending rates.	Post treatment all measures improved for those in treatment condition; treatment grou had significant reductions on video rated ro plays and significantly fewer aggressive incidents than controls. Three- thirty montl follow up indicated maintenance of self rate anger, video rated role play and diary rating –comparisons with waiting list controls.
Taylor, J.L., Novaco, R.W., Gillmer, B. Robertson, A. & Thorne, I. (2005).	2	Group design controlled trial. N = 40 men, mild LD	I/P	Individual cognitive behavioural therapy guided by manual ; education; relaxation; self monitoring; cognitive restructuring; relaxation; stress inoculation; role play.	18 x 60 min bi-weekly sessions.	Anger inventory, provocation inventory, staff rated anger attributes	Significantly greater improvement in treatment groups compared to control group on range of self report measures. Gains maintained over controls at 4 month follow up. Staff rated anger did not indicate significant differences between groups, although staff rated anger reduced in the pr post periods for both groups.

CHAPTER 3: AIMS AND OBJECTIVES

Having suggested that women have been somewhat neglected as the focus in the clinical samples involved in anger research, and that there may be some differences in the way women experience and deal with their anger, albeit results are inconsistent, this chapter sets out the aims and objectives of the women's anger treatment research project. Following the relative success of the men's anger treatment project, clinicians within the women's service requested a similar treatment programme for the women. The literature supports the need for anger treatment for women in-patients, given their higher levels of assault and aggression, which is itself strongly predicted by anger (Novaco & Thacker, 1990). Data gathered within the hospital audit department also indicated higher levels of aggression in the women's service (see Figure 2). Rather than assume what worked for the men would work for the women in this service, agreement was reached that this programme development should be evaluated as rigorously as would be possible given the small population (n =28).

The project aimed to answer three main questions:

1. *Does the nature and scope of anger problems experienced by detained women with developmental disabilities differ from that previously described for a population of detained men with learning disability and offending histories?*

2. *Does the adapted Novaco anger treatment protocol reduce levels of anger in a group of women with developmental disabilities detained in a low secure hospital environment?*

3. *Do staff change their practice in dealing with anger and aggression whilst working in an environment where patients are taking part in a systematic evaluation of their effectiveness of anger treatment?*

Thus the project took place over four stages: (1) description and analysis of routine post admission or clinical needs assessment; (2) treatment of those who met clinical criteria for anger treatment; (3) analysis of treatment effectiveness; and (4) analysis of staff perceptions and involvement.

CHAPTER 4: METHOD – THE WOMEN'S ANGER TREATMENT PROJECT

This chapter will cover methodology for each of the four stages of the project, as set out in the aims. Thus most sections will be broken into four stages relating to these aims (assessment; treatment outcome; treatment process and outcome in sub-sample of case studies; and analysis of staff perceptions and involvement), apart from the section on Setting which was the same for the whole project.

4.1 Setting

The project took place at a learning disability hospital in England, which was located within a specialist learning disability Trust. The hospital had developed a large national service for offenders with learning disabilities, comprising about 150 beds, spread across a medium secure unit for 30 men, and four low secure wards for men and two for women, one of which was located on a site several miles away in the sister hospital in the same Trust. Each low secure ward accommodates 20 patients on average. The women's service, although designated as a low secure service with locked doors externally and internally, had in effect, a different level of security in each of the two wards. The first, located on the main site, had 18 beds divided into two flats and catered for acute admissions and more challenging or disturbed women from 18 years old. It also had a bungalow available in the grounds with a further four beds, for women who could cope with a lower level of staffing and an unlocked door. Women moved around the large area of hospital grounds to attend a variety of activities such as social club, sports, further education and craft work, either independently or escorted as determined by clinical judgement of risk.

The other ward was locked and was split down the middle allowing for separate areas for men and women. It catered for women who were in more active stages of rehabilitation, accessing both hospital activities, and community facilities.

Treatment for the women in the service involves multi-disciplinary assessment following admission, pharmacological interventions, a highly structured regime with incentives for "good" behaviour organised by nursing and medical staff, and a shared goal of encouraging patients to take responsibility for their behaviour, whilst recognising their needs, disabilities and health problems. Many patients are admitted for long periods of time and this can be frustrating for some, but reassuring for others. Psychological interventions target criminological risk factors, and are delivered by occupational therapists, forensic and clinical psychologists, assistant psychologists, arts therapists, nursing staff and a social worker. The heterogeneous nature of the female population makes it difficult to offer interventions consistently over time, and patients often have to wait some months before enough candidates are available for specific group interventions. Interventions are routinely evaluated and thus nursing staff are familiar with carrying out standardised assessments timeously to support this endeavour. However, despite good intentions, it is, in reality, difficult for nursing staff to schedule regular times to support patients with specific psychological therapies or to support maintenance work consistently. Rehabilitation and discharge are difficult to predict as community services for this client group are few and far between, and funding at levels suitable for risk management difficult to establish in this group of people who appear to be relatively able.

4.2 Participants

4.2.1 *Assessment stage of the study*

Participants were all adult women (n = 28) in locked wards in a learning disability hospital, all of whom were detained under the Mental Health Act 1983. Some were detained under Section 3 of the Act, for assessment and treatment, whilst others were detained via the Courts following convictions for offences under Section 37 or 37/41. The latter are then dependent on permission from the Home Office for any transfer or change to the level of security, escorting status or community leave. Some had been transferred from prison to hospital.

4.2.2 *Treatment outcome stage of the study.*

Thirteen participants met inclusion criteria. All participants had completed adapted versions of the Novaco Anger Scale and the Novaco Provocation Inventory (Novaco, 1988) either as part of routine post admission assessment, or routine clinical needs assessment and attained a total score of over 90 on the NAS and/or over 60 on the PI to meet inclusion criteria. These measures had been obtained within a four month time band. Women who were between 18 and 65 years old, with an IQ between 55 and 75, placing them in the mild – borderline learning disability range, were included. Unfortunately three withheld consent, two on being offered treatment, and one after the pre-treatment stage; and one woman absconded after anger treatment had been finished but before post-treatment assessments had been completed. Thus nine women completed treatment and follow up evaluation.

The mean age for included participants was 35.5 years (s.d. 11.0) and the mean FSIQ was 64.8 (s.d. = 5.5). The mean length of stay for participants at the start of the study was 6 years (s.d. 2.9). Table 2 indicates that there were few differences between

Table 2:
Demographic, Cognitive Functioning and Offending Characteristics for Participants

Participant Characteristics	Included Participants (n = 13)	Excluded participants (n = 15)	Assessment Participants (n= 28)
Age	35.5 (11.0)	38.6 (9.5)	37.1 (10.2)
Length of stay in years	6(2.95)	5.2 (4.8)	5.5 (4.8)
Mental illness as recorded in files	4 (30.8%)	9 (60%)	13 (46.4%)
Personality Disorder	8 (61.5%)	8 (53.3%)	16 (57.1%)
Mental Health Act Section:			
S3	6 (46.2%)	8 (53.3%)	16 (57.1%)
S37	2 (15.4%)	3 (20%)	5 (17.9%)
S37/41 or 41/45	4 (30.8%)	3 (20%)	7 (25%)
S48/49	1 (7.7%)	1 (6.7%)	2 (7.1%)
Convictions (index offence or previous):			
Violence	10 (76.9%)	6 (40%)	16 (57.1%)
Sex	0 (0%)	1 (6.7%)	1 (3.6%)
Arson	2 (15.4%)	6 (40%)	8 (28.6%)
Clinical concern about violence	3 (23.1%)	4 (26.7%)	7 (25%)
Cognitive functioning:			
WAIS-R Full Scale IQ	64.8 (5.5)	66.2 (10.2)	65.5 (8.0)
WORD Basic Reading Age in years	9.1 (.99)	8.7 (2.2)	9.0 (1.5)
High anger scores			
NAS Total > 87 (median)	10 (71.4%)	3 (25%)	13 (50%)
PI Total >74 (median)	9 (64.3%)	4 (33.3%)	13 (50%)

Note. The number of respondents varies across measures as psychometric testing could not be done in some cases because participants declined, their mental state precluded testing, or they were discharged. WAIS-R measures (N = 23). Anger scores (N = 26). All values given are means with standard deviations in parentheses, or frequencies with percentage in parentheses.

the included sample and those excluded. Pearson's chi squared, using median splits to convert scale to ordinal data, were carried out to explore any relationships between inclusion in the treatment project and age, IQ, mental illness, anger disposition (NAS Total), anger reactivity (PI Total), convictions for violence and detention under criminal versus non-criminal sections of the Mental Health Act. These indicated that the only statistically significant difference between groups was NAS Total ($\chi = 5.57$; *d.f.* = 1; $p < .018$), and Convictions for Violence (c = 3.877; d.f. = 1; p = .49). The same analysis was conducted between those who completed treatment and those who dropped out from outcome analysis for the various reasons detailed above. There was no statistically significant difference between completers and non-completers of treatment in relation to these variables.

4.2.3 *Process and treatment outcome of sub-sample*

The three selected participants were intended to illustrate best and worst outcomes. These were determined by the main self report anger measures between pre and post-treatment, but also taking follow up points into consideration for the third selected case.

4.2.4 *Staff Involvement*

All qualified nursing staff on the two wards were asked if they would complete questionnaires and structured interviews regarding the treatment outcome sample described above. Nine qualified nurses who were 'Named Nurses' to the project participants completed the Staff Interview (Appendix 15) regarding their involvement and support for participants; fourteen, including the Ward Managers and Clinical Coordinators, completed the final Staff Questionnaire (Appendix 14).

4.3 Design

Whilst Allen has suggested that further experimental designs would be desirable in the forensic learning disability field (Allen, Lindsay, McLeod & Smith, 2001), the numbers of women available as participants within this service, despite being one of the largest in the country, were inadequate for a controlled trial or for group comparison. Shapiro wrote, "One might say the clinical psychologist is in his practical work concerned, albeit, in an uncontrolled manner, with the manipulation of psychological disorder in individual subjects. It follows that fundamental research in clinical psychology should be directed at the controlled manipulation of these same phenomena in the same individuals," (Shapiro, 1961). The most clinically appropriate design for the main part of this treatment outcome study of an under researched population of women was a multiple baseline case series, with participants acting as their own controls. The method of selecting the order of treatment delivery (according to clinical priority) precluded a randomised controlled trial.

The design, for what could be described as a concatenated study, had four stages. Figure 2 illustrates the timeline for the first two stages of the study. Firstly, routine clinical assessment data was used to describe the population and screen patients for inclusion as potential participants. Measures were taken for all participants between three and five months before baseline, and again at baseline a month prior to the treatment project starting in September 2001. Next, participants were offered treatment in cohorts whose size was determined by availability of psychologists from within the department. Thus three small 'cohorts' of four, five and four participants were due to start treatment at three different time points (September 2001, January 2002, and June 2002), allowing multiple baseline treatment outcome design with participants acting as their own controls.

The third stage of the study, exploring whether the treatment programme had a significant focus on cognitions, was purely exploratory incorporating this data into the three single cases reported. The fourth stage, describing staff involvement and attempting to explore its effect on outcome (Milne, 1984; Taylor, Novaco, Gillmer, Robertson & Thorne, 2005), also used a simple form of multiple baseline methodology.

Figure 2: Timeline for first two stages of study – screening and treatment.

Assessment point	Screening	Baseline	Waiting time	Pre	Post		4m follow up		12m follow up
Cohort 1 n= 4	April/ May/June	August	1m	Sep. 2001	Dec 2001		April 2002		Dec. 2002
Cohort2 n= 5	April/ May/June	August	7m	Mar. 2002	June. 2002		August 2002		June 2003
Cohort 3 n= 4	April/ May/June	August	10m	June 2002	Sep. 2002		Dec. 2002		August 2003

4.4 Measures

4.4.1 *Identification of measures.*

As this study hoped to replicate Taylor and colleagues' variously published findings, in as far as is possible with the smaller sample, most of the same measures have therefore been used (see Novaco & Taylor, 2004; Taylor, Novaco, Gillmer & Thorne, 2002; Taylor, Novaco, Gillmer, Robertson & Thorne, 2005). These are described below and available in Appendices 1-16. Novaco & Taylor (2004) described robust psychometric properties for both self report and staff rated anger measures, reporting internal consistency, inter-correlations, inter-rater reliability and test-retest reliability. These will be detailed for each measure on the following pages. The staff rated measure correlated significantly with the summary scores of the self-report measures of anger disposition.

4.4.2 *Assessment stage.*

The measures used in the first assessment stage of the study are as follows. These are illustrated in the Appendices 1-3. Anger assessments used in the assessment study comprised self report measures and file data.

a) The Novaco Anger Scale (Novaco 1994) (Appendix 1) was developed for use with both mentally disordered and normal populations. It is a 60 item self report questionnaire which was administered in a slightly modified way by an Assistant Psychologist in the form of a structured interview, rather than as a paper and pencil self report test. It yields scores in four domains (cognitive, behavioural, arousal and regulation), as well as a total score. The first three domains represent Novaco's explanatory model of anger which incorporates physiological arousal, behaviour in response to anger and associated cognitions. Thus 48 items add together to make the sub-scales and NAS Total, with the additional twelve items making up the separate Anger Regulation sub-scale. A few items were adapted for the participants with developmental disabilities in Taylor et al's 2002 study and this adapted version was also used in this study. This made items more easily comprehensible through the incorporation of examples and rewording of a few questions. The NAS had been well validated elsewhere and the modified version was then validated specifically with the men in this population (Novaco & Taylor, 2004).

b) The Provocation Inventory (Novaco, 1994) (Appendix 2) is a 25 item questionnaire which yields five sub-scale scores (Unfairness; Disrespect; Frustration/Interruption; Annoying Traits; Irritation) indicating areas of greatest vulnerability to anger, as well as a total score. It measures anger intensity and the way in which this generalises across situations of potential provocation. It was administered as described above, also utilising Taylor's rewording of a few items to enhance

comprehension. Thus, "Being singled out for correction" was reworded as "You are the person who was told off" and read out as an alternative wording following the original. The PI was developed originally as Part B of the NAS and is reported as such in a number of studies (Grisso et al., 2000; Mills et al. 1998) yielding strong internal consistency and test-retest reliability (alpha 0.96; test-retest reliability 0.85). It is now published as a separate instrument (Novaco, 2003).

c) The State Trait Anger Expression Inventory (STAXI) (Spielberger, 1996) (Appendix 3) is a widely used scale designed for clinical and research use. It was originally developed in a health setting and is well validated with a number of samples, and has excellent internal reliability in both State Anger and Trait Anger (0.93 and 0.86 respectively). The STAXI has three parts which divide into nine possible scales: the first has ten items and measures State Anger, or anger at that point in time; the second also has ten items and measures trait anger; the third part yields a number of sub-scales of which Anger In, Anger Out, Anger Control and Anger Expression were used as outcome measures. The assessment administration and wording was modified and was delivered as a structured interview. State Anger scale items were preceded by the words "Right now", and the Anger Expression part items were prefaced with, "When I'm angry I.....". These were intended to help orientate participants to the slightly different contexts of the parts of the assessment scale.

d) In addition, data was used from hospital records to describe participants in terms of age, intellectual ability, reading age, clinical profile and offence history.

4.4.3 *The treatment study.*

The assessments used in the treatment study were divided into:

i) self report measures (using structured interview to complete rating scales, or an imagined situation to which they rated a response);

ii) staff ratings (some completed weekly by ward nursing staff during key phases of the project, and others completed following key components of the treatment programme, rating competency in elements of the skills targeted by the treatment);

They are listed and described below:

i) a) Novaco Anger Scale (NAS) (as described above).

b) The Provocation Inventory (PI) (as described above).

c) The State Trait Anger Expression Inventory (STAXI) (as described above).

d) The Imaginal Provocation Test (IPT) (Taylor, Novaco, Guinan & Street, 2004) (Appendix 4) was developed to measure response to anger in several imagined scenarios of particular relevance to this population in the setting. A short scenario was read to the participant and they were asked to rate their response in terms of how they would feel and behave. The test also involves a measure of memory for the scene, to check participants actually recall the scenario they are rating. Similar measures have been developed for other studies (Van Goozen, Frijd, & Kindt, 1994; Walker and Cheseldine, 1997). Unfortunately this measure had not been formally evaluated at the start of this study and, in an attempt to be economical with assessments where possible had not been incorporated at baseline, both to reduce the risk of assessment itself having a clinical effect, and due to resource implications for the Assistant Psychologists in the department. They were not specifically funded for the purposes of this project and had other duties to perform. However, as it became clear that the IPT yielded clear results in terms of illustrating effects in the men's sample, it was used for the last five women participants. The scenarios were considered to be non-gender specific and equally applicable to the ward environment of the women in the service.

e) The Patient Evaluation Questionnaire (PEQ-PP and PEQ-TP) (Appendices 5 & 6) was designed to evaluate the participants' views on what were the most and least

helpful and enjoyable aspects of treatment. It was used in two forms, one of which held eleven questions and which was used after the six preparatory sessions were complete, and the second of which held eighteen questions for use after the treatment sessions were complete. Each item was rated on a three point scale (unhelpful, a little helpful and very helpful). It also contained a small number of more open questions regarding what participants found useful or helpful.

ii) Staff Rated Measures

a) The Ward Anger Rating Scale (Novaco, 1994) (Appendix 7) is rated by staff who know the patient well and who have observed the participant over the last week. It was also developed as part of the validation of the NAS, and is divided into two parts measuring angry behaviour in Part A and angry temperament in Part B (the Anger Index), with a further sub-scale of Part A yielding an antagonism score. The items which make up this Antagonistic Behaviour Index are "verbally abused someone", "verbally threatened to attack a patient", "verbally threatened to attack a staff member", "physically attacked a staff member" and "physically attacked a patient". The assessment is short and designed to be reasonably easy for busy staff to use, being on one side of paper only, comprising 25 items in total, 18 of which require Yes/No answers (Part A) and seven of which require a rating on a five point scale (not at all, very little, sometimes, fairly often, very often). A study involving mentally disordered offenders in another secure hospital setting identified that the measure yields strong inter-rater reliability (94.7% agreement for Part A and 89.7-100% for the Antagonistic Behaviour Index. Internal consistency for the seven items in the Anger Index was .88 (Cronbach's alpha). The measure also seemed to yield good predictive and concurrent validity when considered against other data on violent incidents (Novaco & Renwick, 2002).

b) The Patient Competency Checklist (PCC-PP and PCC-TP) (Appendices 8 & 9) was an 18 item questionnaire administered as a structured interview by the therapist to the Named Nurse after the first 6 sessions of treatment (preparatory phase – PCC-PP), and again after the treatment sessions were complete (PCC-PT). Staff were asked to rate the participant's competence using a three point scale (not competent, limited competence or competent). A concensus was reached by the therapist and nurse and these joint ratings of competence on various elements of the treatment were recorded.

c) A Clinician's Rating Scale (CRS) (Appendix 10) was used at the end of treatment and was completed independently by the Named Nurse and returned to the Assistant Psychologist responsible for collecting and collating data. It was intended to measure characteristics of participants which might be pertinent to adaptive coping with anger. The six attributes measured are: 'tolerance for frustration'; 'interpersonal sensitivity'; 'sociability'; 'irritability'; 'tenseness'; and 'defensiveness'. These were each rated on a five point scale from 1 ('much worse) to 5 ('much better'). A copy of this can be found in Appendix 10. It was the same scale as used by Taylor (2002) and was adapted by Novaco & Renwick (2003) from Black & Novaco (1993).

d) A Goal Attainment Scale for Emotional Awareness and Expression (GAS) (Appendix 11) was completed with Named Nurse on two occasions. Firstly it was completed in conjunction with the PCC-PP after the preparatory sessions, and secondly it was completed along with the PCC-PT after the treatment was complete. Therapists and Named Nurse rated the participant in three areas: 'ability to identify and describe emotional states in self and others'; 'ability to demonstrate emotional expression appropriately'; and 'knowledge of emotional coping strategies'. Each item could be rated at one of five different levels each of which had specified criteria to assist making the rating. For example, Knowledge of Emotional Coping Strategies Level 1 (Very

Poor) was defined as, "No apparent ideas or suggestions re appropriate coping strategies". Level 3 (Satisfactory) was defined as, "Some ability to be able to identify or suggest appropriate coping strategies". Level 4 (Good) was defined as, "Good ability to identify appropriate coping strategies and some evidence of actual use".

4.4.4 *Case studies*

As well as those measures detailed above, two measures of process were utilised, as well as descriptive material from manualised session notes.

a) Session Rating Forms (Appendix 12) were completed by therapists each session and involved notes about aims and outcomes of that session, asked the participant to rate the session for enjoyment, helpfulness and how much they learned and rated participants on communication, engagement and comprehension.

b) Anger Log II and III (Appendix 13) were the second and third versions of the Anger Logs introduced in the Preparatory Phase of treatment to help participants develop awareness of their angry feelings and the cognitive behavioural model of understanding these. Anger Log I required participants to tick boxes of given options to detail the situation, people involved, triggers, feelings and reactions for an anger incident. Staff often supported participants to complete these. They provide a simple, highly structured method of self-monitoring for participants . The addition to Anger Log I of a section asking "What were you thinking?" in Anger Log II, and a further additional section on Anger Log III asking, "How could you think about it differently? Put yourself in the other person's shoes" introduced and developed the cognitive aspects of these monitoring sheets. Thus participants were describing anger incidents in terms of what happened when and with whom; how they felt; as well as describing the cognitive aspects of the incident and alternative ways of thinking about it.

4.4.5 *Staff involvement*

The fourth stage of the study used two forms of assessment of staff involvement and perceptions and these are described here.

a) The Staff Questionnaire (Appendix 14) was developed for administration to Named Nurses following completion of the men's anger treatment project by Taylor (2002), in order to consider the views of direct care staff regarding the benefits or difficulties of delivering anger treatment to the patients in their wards. This questionnaire contained eleven items, as well as recording some details about the nurses involved, such as length of qualification, length of time working in the area, gender and age. Five items are rated on a five point scale from 1 (representing the negative end of the scale e.g not at all/ very negative) to 5 (representing the positive end of the range e.g. 'a great deal / very positive'). One example was, "In general terms would you say your involvement with the anger treatment project has been positive or negative?"; and another, "Do you think you have learned anything about anger treatment from your involvement with the project?".

Seven items prompt descriptive responses linked to the previous rating scale items. One example of these linked items would be question 8 which is, "Do you think other patients on the villa /unit have benefited from some patients receiving anger treatment and/ or from your involvement?", which was rated from 1-5 as described above. This was followed by question 9, "In what ways do you think the other patients have benefited from some patients receiving treatment and/ or from your involvement?" which had four itemised lines for staff to respond with any ways in which they thought other patients did or did not benefit.

b) A semi-structured Staff Interview (Appendix 15) was developed as an additional measure for the women's project to assist in the investigation of the extent of

involvement by staff and whether this made an impact on the change which took place following treatment. This interview was completed over the phone and incorporated more detailed questions about the kinds of help offered by the Named Nurses. Each of the 15 items was rated on a five point scale to ascertain how often nurses had helped participants with specified aspects of their treatment, and how often they had helped other patients with specified aspects of their anger treatment. It also asked whether they used any of the aspects of treatment they had learned to apply to themselves or others.

4.5 Data analysis

4.5.1 *Data collection*

Data was collected, scored and collated on an SPSS database by Assistant Psychologists independent of therapists and the lead researcher.

4.5.2 *Analysis of assessment data*

Internal reliability of the assessment measures was considered using internal consistency (Cronbach's alpha) and inter-correlations (Pearson's *r*).

4.5.3 *Analysis of treatment outcomes*

Examination of the data on each of the measures for each of the nine participants using box-plots suggested that the data was not normally distributed, given there were several outliers on several measures. This meant that non-parametric analysis might be advisable. Consideration was given to the pros and cons of analysis of variance, and considered alongside the merits of more descriptive methods of evaluating outcome using measures of clinically reliable change (Jacobson & Truax, 1991) and effect sizes (Cohen's *d,* Cohen 1988). T-tests ascertained that there were no significant differences between baseline and pre-treatment measures on any sub-scales or total scores, other than one sub-scale of the Provocation Inventory (frustration/irritation). Therefore non-

parametric within-subjects repeated measures analyses of variance were used to determine whether changes in key scores were significant from pre-treatment to post-treatment, 4 month and 12 month follow up and effect sizes were calculated. Planned analyses based on previous findings were not carried out due to the exploratory nature of the study, and the gender bias in existing studies. Such statistical analysis may mask the potentially interesting variability of responses in a small sample, and clarify the importance of the magnitude of change. In order to determine whether the magnitude of change on a subset of the measures was statistically reliable, the index of reliable change was calculated for several of the measures (Jacobson, Follette & Revenstorf, 1984; Jacobson & Truax, 1991). This takes measurement error into account and generated graphs indicating how many of the nine participants could be considered to have reliably changed clinically.

4.5.4 *Case studies*

Given the early stage of research in the field of evaluation of anger treatment for women, there also seemed to be merit in describing details of outcomes in selected single cases and for this purpose, we attempted to select two cases according to 'best' and 'worst' outcome on the main outcome measure, NAS Regulation. This measure was selected by identifying the measure which indicated greatest change for the treatment participants using the standard deviation of the mean of all the women screened (Mean of NAS Regulation = 24.5; s.d. = 4.0; n = 27). The change by standard deviations was calculated by dividing the difference between pre- and post-treatment scores by the standard deviation for the screening group (Cohen, 1988) (NAS Regulation pre-treatment mean = 20; post-treatment mean = 24.78; change = 1.19 standard deviations). Graphs were also used to illustrate change for these selected cases. However, the individual who improved most between pre and post-treatment on this

measure relapsed fairly quickly thereafter on most measures, and did less well on reductions in anger disposition and reactivity. Graphs for the participant who did third best in this respect illustrated a much more consistent picture of improvement across time and all measures, and thus her involvement in treatment and follow up has also been described.

4.5.5 *Cognitive content*

Details from the anger logs (Appendix 13) and "Thinking Differently" worksheets described above and generated within treatment sessions and as homework tasks were simply described as part of the three case studies.

4.5.6 *Staff involvement and perceptions*

Analysis of staff involvement also involved simple descriptive statistics and an attempt to relate the extent of staff involvement to change in anger in participants.

4.6 Procedure

4.6.1 *Assessment/screening stage.*

All women patients in the two women's forensic wards were assessed using the Novaco Anger Scale, Provocation Inventory and STAXI within a month of June 2000 and candidates for the treatment stage were identified using the inclusion criteria described above (Participants). Demographic and diagnostic information was also collected from their files.

4.6.2 *Treatment study*

Four participants were offered treatment between September 2001 and early 2002; five participants were offered treatment between March 2002 and June 2002; and a final four were offered treatment between June and September 2002.

In the month prior to treatment, baseline assessment took place using the self report questionnaires and IPT, as well as 4 weeks of staff rated WARS. Assessment was completed by an Assistant Psychologist independent of the therapist to add to the integrity and objectivity of the evaluation process. A complete outcome data-set on all anger measures was developed for nine women, apart from scores for the Imaginal Provocation Test.

Treatment commenced and involved 6 pre-treatment sessions designed to engage, inform and motivate participants (see Table 3 for summary of preparatory and treatment sessions). These preparatory sessions provided a 'taster' of several of the concepts and exercises involved in the subsequent treatment sessions. Thus participants had a chance to start self monitoring using Anger Logs, to try out basic relaxation exercises, to try some simple homework tasks and to be socialised into the cognitive behavioural model. These were followed by twelve sessions of cognitive behavioural treatment based on the treatment manual developed by Taylor and Novaco for their study of anger treatment in men in the same forensic hospital service (Taylor, 2002; Taylor & Novaco, 2005). The aim of sessions was to develop a shared formulation early on; develop participant expertise in identifying, recording and restructuring cognitions associated with anger; develop relaxation skills both within and independent of sessions; develop assertive communication skills; and to work through a hierarchy of anger incidents in imagination over several sessions applying Novaco's stress inoculation procedure. Treatment was delivered twice a week where possible, or weekly if therapist or participant availability was limited, and took place in a room on the respective ward. Breaks for therapist annual leave, or for completing the Patient Competence Checklist following completion of Preparatory Phase were never more than two weeks. Nursing

Table 3:
Primary Focus of Preparatory and Treatment Phase Sessions of Anger Treatment

	Preparatory Phase Session Focus		**Treatment Phase Session Focus**
Session 1	Explaining the purpose of anger treatment	*Session 7*	Introduction to the Treatment Phase sessions
Session 2	Feeling angry is OK – anger as a normal emotion	*Session 8*	Building an anger hierarchy
Session 3	Understanding our own and other peoples' feelings	*Session 9*	Introduction to stress inoculation
Session 4	How to control the physical feelings of anger – physiological arousal	*Session 10*	Beginning cognitive re-structuring
Session 5	Reasons for changing the way we cope with angry feelings	*Session 11*	Developing cognitive re-structuring
Session 6	Review of the Preparatory Phase and preview of Treatment Phase	*Session 12*	Perspective-taking and role-playing
		Session 13	Using self-instructions effectively
		Session 14	Problem-solving through effective communication
		Session 15	Development of problem-solving through effective communication
		Session 16	Dealing with rumination and escalation
		Session 17	Integration of skills & dealing with repeated provocation
		Session 18	Review & evaluation of anger treatment phase

Note. All sessions are guided by a detailed manual, delivered by psychology graduates or clinical or forensic psychologists to individual clients. Each session is of approximately 1-hour duration. Feedback is provided routinely to direct care staff at the end of the each session concerning the client's presentation and progress within the session, and any homework that is to be completed between sessions.

staff were expected to support homework tasks and occasionally sat in on a session or sessions, or came in at the end to receive feedback. WARS were completed by the Named Nurse on a weekly basis throughout treatment and sent in to the Psychology Department.

4.6.3 *Follow up*

After treatment was complete, the Staff Interview was carried out with the Named Nurse to ascertain how much involvement they had had in supporting various aspects of anger treatment with the participant or any other patients. This was carried out by an Assistant Psychologist either face to face or by telephone.

Following completion of the treatment sessions the therapist completed the Patient Competency Checklist with the Named Nurse, along with the self report measures. WARS were completed for a further 4 weeks following treatment. Four month follow up consisted of all self report measures as well as another 4 weeks of WARS. Twelve month follow up was the same. At this point the Staff Interview was repeated with Named Nurses and the Staff Questionnaire was administered to all qualified staff which was designed to gauge their opinion regarding the benefits of the programme and asked for any suggestions for improvement.

4.7 Therapists

The therapists were not all qualified, applied psychologists. Treatment was delivered by therapists who had an honours degree in Psychology and had worked in the service for at least a year, or who were in training in clinical psychology, or who were qualified forensic or clinical psychologists. Previous clinical evaluation had indicated that there was no significant difference between outcome achieved by qualified as opposed to unqualified psychologists (Wilson, 1998).

4.8 Treatment Integrity

DiGiuseppe and Tafrate's meta-analysis (2003) suggests that greater effect sizes were achieved in those studies which included use of a manual and addressed treatment integrity, by for example offering regular supervision. The main researcher, who also delivered therapy, arranged weekly supervision for therapists. In addition, therapists were expected to complete sessional ratings of engagement, patient ratings of helpfulness, learning and enjoyment, as well as hand-written notes on a session record sheet. Patient files and reports were checked from time to time, and protocols were discussed at a monthly anger steering group meeting. Occasionally during the course of the research project, Novaco or Taylor sat in on some of these meetings to make comment or give feedback. Thus treatment integrity was enhanced.

4.9 Consent procedure

Consent for people with a developmental disability who are detained in hospital is a particularly challenging issue (Arscott, Dagnan & Stenfert-Kroese, 1998; McCarthy, 1998; Clegg, 2004; Sturmey, Taylor and Lindsay, 2004). Not only may they have difficulty understanding the treatment procedure, and the concept of a research project, but in this setting, are detained against their will and have a complicated set of motivating factors. It is possible that they may be more compliant than they might otherwise be were they part of the normal population in the freedom of their own homes. For these reasons care was taken in obtaining consent with the involvement of a familiar nurse acting as advocate and advisor for the participant, and a 'cooling off' period was built in.

Consent was not obtained for the screening assessments as these were part of routine clinical assessment which would have taken place for clinical reasons. Consent was sought for participants who were identified as meeting criteria for treatment prior to baseline assessments being sought. An information leaflet (see Appendix 17) was read to or with each participant by the therapist and a qualified member of the nursing staff on duty on the ward. The nurse was asked to discuss this with them again later and the therapist returned at an agreed time to formally sign a consent form with the participant if they were willing. Consent was formally sought again after the preparatory phase in the same manner, again giving the participant a better informed choice about whether to continue the treatment.

4.10 Ethical issues

Apart from the consent procedure described above, the ethical issues considered were the fact that participants were detained under the Mental Health Act (1983) and could have been considered to be "over compliant" as a way of gaining favour with those with powers to progress their stay towards discharge. The consent procedure seems to have addressed this possibility adequately as three women felt able to withhold consent. Another legal question that could be raised was question of capacity to consent both to research and treatment more generally. Following selection, the researcher wrote to each potential participant's Responsible Medical Officer to specifically ask their opinion about the patient's capacity to give informed consent to take part in a research project and in treatment for anger. The only participant whose R.M.O. had doubts had fluctuating mental health. She was well at the baseline assessment phase and consented to taking part. When the time came for her to be offered treatment, she was also judged to be well enough to give informed consent and did so prior to the

Preparatory Phase. However, she then denied consent to Treatment Phase, again suggesting the procedures gave adequate opportunity to withhold informed consent. This did not seem to be due to mental ill health but her general inclination to minimise her difficulties and to mistrust people trying to help her. She denied anger problems, despite having completed self report assessments suggesting significant levels of anger.

Other ethical issues regarding the actual cognitive behavioural treatment method were raised during supervision and involved the question of addressing deep seated developmental, emotional or family issues which were often lying behind the presenting anger. With the benefit of the experience of the men's project, when participants consistently raised issues of abuse or other family matters from the distant past, the therapist made it clear that these issues were heard and valued, but that this treatment programme was not designed to address such important and painful matters, The participant was told that the therapist would let both Named Nurse and Lead Clinical Psychologist know that they wished to discuss these issues and that arrangements would be made to address this immediately anger treatment was complete. In some cases participants were clear that they did not wish to talk about the past at all, and this was respected also.

Approval for the research project was gained from both the Trust Research and Development Committee (April 2002) and then the local Health Authority Ethics Committee (May 2002).

CHAPTER 5 – RESULTS I – ASSESSMENT

5.1 Comparing the women with the men

Table 4 on page 62, illustrates how the women in this study compared with the men in Novaco & Taylor's assessment sample (2004). The women were slightly older and had longer periods in hospital. Women had higher levels of diagnosed mental illness, personality disorder, and history of sexual abuse as would be predicted by the literature (Brown & Turk, 1992; Taylor, Hatton, Dixon & Douglas, 2004). In this sample, 57% of the women had been convicted (as the index or a previous offence), of a non-sexual violent offence, by comparison with only 36% of the men. Far more men were convicted of sexual offences. Violence as a clinical concern but without conviction was documented for 25% of the women and 38% of the men. Of those men without convictions for sexual violence, 17.1% had convictions of violence. All of the women were detained under the Mental Health Act with none having Informal status, compared with 6% of Informal male patients. However, only 50% of the women were detained following criminal conviction, by comparison to 67% of the men. The others were detained under civil sections of the Mental Health Act, usually on grounds of mental impairment with associated seriously irresponsible behaviour.

T-tests were used to test for significant differences between men and women in terms of age and IQ. Pearson's chi-squared was used to consider any relationship between gender and Mental Health Act section or convictions for violence. These indicated no significant differences or relationship with gender. Figure 3 illustrated the way in which the women differed from the men in terms of use of emergency interventions used to manage disturbed behaviour and this information illustrated in the graph is further supported by the differences in mean number of assaults. Whilst

Figure 3: Trends in use of emergency interventions used to manage episodes of disturbed behaviour Dec. 2000 – Dec 2001.

Forensic (Dec 2000 to Dec 2001)

	2000	2001												
Ward	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total
A	4	0	2	6	7	5	9	11	7	7	9	8	3	78
B	2	4	5	1	0	1	1	2	1	0	0	0	1	16
C	2	4	5	1	1	4	3	10	5	4	0	3	0	30
D	7	21	19	86	24	32	28	41	40	49	31	13	30	258
E	0	5	1	2	1	1	0	1	0	2	4	0	0	11
F	0	3	0	3	3	6	2	4	7	6	0	0	4	38
G	6	7	3	5	7	7	0	4	2	2	2	7	0	52
H	7	3	2	2	2	2	12	2	4	5	7	3	1	52
I	1	1	2	2	2	8	5	3	5	3	3	14	1	50
J	7	6	8	5	2	7	1	1	2	1	1	9	2	52
Total	36	54	47	113	49	73	61	79	73	79	57	57	42	820

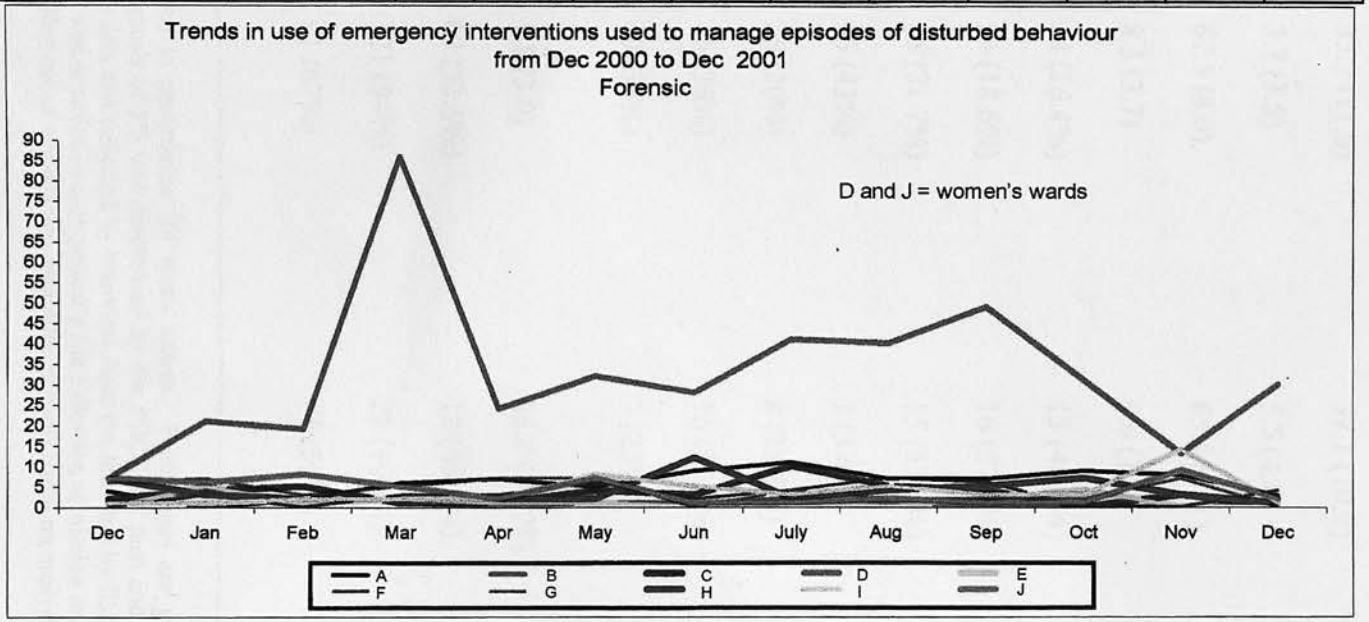


Table 4
Male and Female Patient Demographic, Clinical and Forensic Characteristics

	Men *N* = 129	Women *N* = 28
Mean age	33.2 (11.6)	37.1 (10.2)
Mean length of stay (years)	3.7 (3.5)	5.5 (4.8)
Mean FSIQ	67.5 (8.0)	65.5 (8.0)
Mean reading age (years)	8.3 (3.7)	9.0 (1.5)
Mental illness	34 (26.4%)	13 (46.4%)
Personality disorder*	24 (18.6%)	16 (57.1%)
History of sexual abuse**	28 (21.7%)	15 (53.6%)
Sexual offender	55 (43%)	1 (3.6%)
Arsonist	26 (20%)	8 (28.6%)
Convicted for violence	46 (36%)	16 (57.1%)
History of violence without conviction***	49 (38%)	7 (25%)
Mean number of assaults $	1.8 (3.0)	45.8 (59.78)
Number of assaultive pts. $	69 (53.5%)	12 (85.7%)
Detained patients	121 (94%)	28 (100%)
Detained under criminal sections of MHA 1983	81 (67%)	14 (50%)

Note. Standard deviations are given in parentheses for mean values. Percentages are given in parentheses for frequencies. *Diagnosis of PD was determined by the PDCC for men and by file review for women. **Sexual abuse data was collected by interview from the men and by file review for women. ***History of violence was recorded in each patient's file following admission and based on previous records and reports. $ Number of assaults and assaultive patients based on analysis of 14 case files.

this could indicate a difference in behavioural and service management practices, it also seems indicative of a difference between the patient groups. Far more women (57%) were placed in this service as a result of non- sexual violent offences, whilst almost half of the men were there as a result of sexual offending. The proportion of assaultive men was far less (53.5%) than the women (85.7%).

Details of the women's assault data collected from medical records from patients' admission to the end of follow up period are shown on Tables 4 & 5. Unfortunately, several patients' records were inaccessible by the time of collection of assault data and although data for each patient screened was sought, only 14 records were accessible. The average number of assaults per patient per year was also calculated for each patient between admission and screening period and these ranged from 0 – 19.5. Eight women assaulted staff or other patients less than three times per year on average, whilst four patients assaulted someone more than ten times per year on average. Two did not assault anyone. Thus whilst the majority of patients assaulted someone at some stage during admission, a smaller number of women probably accounted for a large number of those assaults.

Table 5:

Assaults carried out by women patients (n=14) during admission.

	Mean number of assaults per patient	No. of patients carried out 0 assaults	No. of patients carried out 1-3 assaults	No. of patients carried out >3 assaults
Admission to screening period	45.78	2	2	10
Admission to end of follow up	57.00	2	2	10
6 months pre-treatment *	6.33	1	2	3
6 months post-treatment *	5.5	2	1	2

N.B. *n = 6 as these data refer to those who received treatment only.

5.2 Internal consistency of anger scales

The internal consistency coefficients for the NAS Total was .89 (n = 23) and .92 (n = 24) for the PI Total (Cronbach's *alpha*). For the NAS Cognitive, Arousal, Behavioural and Regulation sub-scales it was .83 (n = 25), .84 (n = 24), .86 (n = 25) and .65 (n = 24) respectively. Many other studies of hospitalised samples did not use the NAS Regulation sub-scale, or did not quote its psychometric properties due to poorer psychometric properties as illustrated here also. The internal consistency coefficient for STAXI State Anger was .93 (n = 24) and for STAXI Trait Anger was .88 (n = 24). No screening data was available for the WARS. All of these levels are adequate (above 0.7) apart from NAS Regulation, and are similar to those found in Novaco's standardisation samples.

5.3 Inter-correlations between scales

In order to further investigate the appropriateness and robustness of the assessment tools for this population, scatter plots were generated for all sub-scale pairs. These indicated generally linear relationships between variables with the exception of STAXI State Anger, for which there was a skewed distribution (69% of the screening sample scored 10, indicating no anger "right now") and thus no linear relationship with other sub-scales. Pearson's *r* was calculated between all the other main outcome scales and sub-scales and Spearman's *rho* for STAXI State Anger (see Table 6 below). These correlations indicated a similar pattern to that found by Novaco & Taylor (2004) with the male participants in their assessment study. The NAS and STAXI, both measures of anger disposition, showed substantial statistically significant relationships, with the most consistently significant inter-correlations between scales of the NAS and STAXI Trait Anger and Anger Expression, and the least consistent between scales of the NAS and STAXI Anger In. Trait Anger is correlated with all NAS scales at below the $p<.01$ level, with NAS Behavioural being the highest (r =.799). Anger Control correlated negatively, as would be expected, with Anger Expression and PI Total (r = -.807; r = -.554), both measures of reactivity to anger. NAS Regulation, measuring a similar aspect of anger to STAXI Anger Control correlated significantly with STAXI Anger Expression (r = -.624), again, as would be expected, in a negative direction. STAXI Anger Control had a significant negative correlation with PI Total (r = -.554). Although the correlation between STAXI Anger Control and NAS Regulation was significant (r = .614; $p<.01$), NAS Regulation demonstrated more variably sized correlations with the other sub-scales than did STAXI Anger Control which performed more consistently.

5.4 Comparing anger scores in men and women

Our own data suggested that there were very few differences indeed between the men and the women in terms of their scores on a variety of self-report measures of anger (see Table 7 on page 68 for details). Means and standard deviations for the Novaco Anger Scale, Provocation Inventory and the other STAXI sub-scales were all extremely close to those of the men. The only scores which were slightly higher for men (though not reaching statistical significance) were mean NAS Behaviour sub-scale score and mean NAS Total. All others were slightly higher for women with the mean PI Total reaching 6 points higher, although this was still less than 0.5 s.d.. This was mainly accounted for by the Disrespect sub-scale which difference between the men and the women approached statistical significance ($t = -2.00$; $p = .05$). The only statistically significant differences were between the two STAXI Trait anger scales ($t = 2.11$; $p = .04$; $t = 2.46$; $p = .02$).

Table 6: Inter-correlations between all self report scales.

	STAXI						*NAS*					***PI***
	State Ang	Trait Ang.	Anger In	Anger Out	Anger Contr.	Anger Express.	NAS Cog.	NAS Arousal	NAS Behav.	NAS Total	NAS Regulation	PI Total
Anger												
STAXI State												
Trait Anger	0.370											
Anger In	0.595**	0.473*										
Anger Out	0.325	0.831**	0.350									
Anger Contr	-.148	-.610**	-.206	-.580**								
Anger Expre	0.447*	0.838**	0.623**	0.860**	-.807**							
NAS Cognitive	0.543**	0.515**	0.283	0.512**	-0.440*	0.566**						
Arousal	0.502**	0.651**	0.511**	0.550**	-0.270	0.553**	0.543**					
Behavioural	0.517**	0.799**	0.321	0.814**	-0.563**	0.756**	0.689**	0.695**				
Total	0.589**	0.753**	0.421*	0.721**	-0.491*	0.716**	0.854**	0.848**	0.915**			
Regulation	-.171	-.521**	-.224	-.493*	0.614**	-.624**	-.207	-0.327	-0.416*	-.364		
PI Total	0.287	0.430*	0.128	0.385	-0.554**	0.492*	0.510**	0.408*	0.506**	0.545**	-.247	

Note. The coefficients presented are Pearson correlations for all patient self-report anger measures apart from STAXI State Anger, which had a skewed distribution and which are Spearman. The correlations are for 27 patients on the STAXI, the NAS and the PI. ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed)

Table 7:

Anger Scores and Differences for Men and Women in the Screening Samples

		Men $N = 112$	Women $N = 26$	t	p
NAS					
	Cognitive	32.7 (5.2)	33.0 (6.4)	-.21	.83
	Arousal	29.4 (6.9)	31.0 (6.4)	-1.06	.29
	Behavioural	30.3 (6.5)	29.1 (7.0)	.78	.43
	Regulation	24.6 (4.3)	24.5 (4.0)	.15	.88
	Total	92.4 (16.6)	91.1 (17.3)	.04	.97
PI					
	Unfairness	13.6 (3.6)	14.8 (3.8)	-1.38	.17
	Frustration	13.3 (3.8)	13.9 (3.7)	-.72	.47
	Annoyance	11.2 (4.0)	12.3 (4.5)	-1.37	.17
	Irritation	11.8 (3.9)	12.8 (4.5)	-1.58	.12
	Disrespect	12.9 (3.5)	14.8 (3.8)	-2.00	.05
	Total	62.9 (16.2)	68.6 (17.1)	-1.70	.10
STAXI					
	State Anger	11.6 (3.7)	12.5 (4.7)	-1.06	.29
	Trait Anger	18.8 (6.3)	21.3 (7.6)	-2.11	.04*
	T/Ang-T	6.9 (2.7)	8.3 (3.4)	-2.46	.02*
	T/Ang-R	8.0 (3.1)	8.7 (3.3)	-1.28	.20
	Ax In	17.8 (4.1)	17.8 (5.1)	-.191	.85
	Ax Out	16.8 (5.1)	17.4 (6.0)	-.74	.46
	Ax Con	19.7 (5.9)	20.2 (6.3)	-.22	.83
	Ax Ex	30.8 (11.2)	31.1 (13.3)	-.15	.88

Note: Values provided are mean scores with standard deviations in parantheses. * = statistical significance $p < 0.5$.

CHAPTER 6 – RESULTS II - TREATMENT OUTCOME

6.1 Women's Responses to Anger Treatment

With a sample too large for single case methodology, and somewhat underpowered for robust and detailed statistical analysis, a number of methods were used to determine the participants' responses to treatment. These included the participants' subjective responses based on sessional evaluation reports and Patient Evaluation of Treatment Questionnaires completed after the preparatory stage of treatment and post-treatment proper; the staff and therapist ratings on the Patient Competency Checklist at the same time points; the scores on self report anger questionnaires; and the staff rated Ward Anger Rating Scale. Both statistical and clinical methods of analysis were used, as advised for clinical outcome research (Barker, Pistrang and Elliott, 2002).

6.2 Statistical analysis of anger treatment

Table 8 shows the means and standard deviations for all self-report anger measures at all time points. The small sample size, and the fact that a series of box-plots indicated a number of outliers, suggested the use of non-parametric rather than parametric statistical tests. Thus a non-parametric test of the difference between the means was used (Wilcoxon Signed Rank Test), and Table 9 shows that the difference between means of several self report scales were significantly greater than that predicted by chance (Cognitive, Behavioural and Regulation sub-scales and NAS Total score; STAXI Anger Expression and Anger Control).

Table 8: Means and standard deviations for all self-report anger measures at all time points

	Base	Pre-treatment	Post-treatment	4 months follow-up	12 months follow-up
NAS					
Cognitive	36.00 (6.61)	37.11 (3.48)	34.11 (4.20)	33.30 (4.27)	34.67 (5.10)
Arousal	33.00 (6.19)	35.56 (5.08)	33.00 (6.61)	31.89 (3.82)	33.10 (6.17)
Behaviour	33.10 (8.70)	36.67 (4.74)	31.44 (5.57)	32.89 (4.40)	31.10 (4.46)
Total	102.56 (18.60)	109.30 (11.28)	98.56 (15.30)	98.11 (9.06)	98.88 (13.36)
Regulation	21.40 (2.83)	20.00 (3.54)	24.78 (3.07)	23.44 (4.28)	25.22 (4.38)
PI					
Disrespect	15.89 (2.42)	15.89 (4.11)	15.22 (3.73)	14.78 (2.91)	13.67 (4.00)
Unfairness/injustice	16.22 (2.39)	17.00 (3.64)	14.89 (3.06)	14.11 (3.18)	13.89 (4.26)
Frustration/interruption	10.22 (1.85)	16.22 (4.15)	14.67 (3.97)	13.22 (4.41)	14.00 (4.12)
Annoying traits	15.44 (3.00)	15.11 (4.08)	14.00 (4.21)	13.11 (2.42)	11.78 (3.31)
Irritations	15.56 (2.79)	14.78 (4.32)	14.89 (4.17)	14.33 (4.03)	13.11 (3.76)
Total	78.89 (9.89)	79.00 (19.62)	73.67 (16.16)	69.56 (12.39)	66.40 (17.12)
STAXI					
State	14.67 (7.02)	12.67 (5.81)	12.11 (5.01)	14.56 (7.70)	16.33 (9.90)
Trait	26.00 (7.43)	24.00 (4.44)	22.44 (5.00)	21.89 (5.82)	22.89 (8.01)
Anger Expression	39.89 (11.33)	41.44 (5.41)	31.67 (8.76)	34.44 (8.13)	37.33 (6.91)
Anger Control	16.56 (3.97)	15.56 (2.51)	20.89 (4.65)	17.30 (5.83)	17.30 (5.77)

Table 9:
Difference between means for self report anger measures pre and post treatment

Measure	Pre-treatment Mean (s.d.)	Post-treatment Mean (s.d.)	Wilcoxon Test *Z (p)*	Effect size (M^1-M^2/s.d.^{1})
NAS				
Cognitive	37.1 (3.48)	34.1(4.2)	-2.442 (.015*)	0.86
Arousal	35.6 (5.1)	33 (6.61)	-1.198 (.231)	0.51
Behavioural	36.7 (4.7)	31.4 (5.6)	-2.549 (.011*)	1.13
Total	109.3 (11.3)	98.6 (15.3)	-2.386 (.017*)	0.97
Regulation	20 (3.54)	24.8 (3.1)	-2.673 (.008**)	1.36
PI				
Disrespect	15.9 (4.11)	15.2 (3.73)	-0.537 (.591)	0.16
Unfairness/injustice	17.0 (3.64)	14.9 (3.06)	-1.975 (.048*)	0.58
Frust'n/interruption	16.2 (4.15)	14.7 (3.97)	-1.529 (.126)	0.36
Annoying traits	15.1 (4.08)	14.0 (4.21)	-.679 (.497)	0.27
Irritations	14.8 (4.32)	14.9 (4.17)	-.071 (.944)	0.02
Total	79 (9.89)	73.7 (16.2)	-1.602 (.109)	0.54
STAXI				
Anger Expression	41.4 (5.4)	31.7 (8.8)	-2.668 (.008**)	1.79
Anger Control	15.6 (2.51)	20.9 (4.65)	-2.67 (.007**)	2.11

Having ascertained that there was no significant difference between Baseline and Pre-treatment measures once again using a non-parametric test of difference between means, the Friedman Test was used to examine whether variance continued to be significant over the treatment and four and twelve month follow up period. The results of this analysis are shown in Table 10.

Table 10: *Non-parametric analysis of variance (Friedman's Test) for Self-Report Anger Measures from pre-treatment through to 4 &12 month follow up.*

Measure	Friedman's Test *F (p)* *Pre-4m*	Friedman's Test *F (p)* *Pre-12m*
NAS		
Cognitive	9.176 (.007**)	6.341 (.093)
Arousal	6.686 (.032*)	7.227 (.060)
Behavioural	6.000 (.057)	8.379 (.039*)
Total	8.971 (.008**)	8.517 (.031*)
Regulation	10.606 (.002**)	13.134 (.002**)
PI		
Disrespect	2.529 (.297)	4.518 (.211)
Unfairness/injustice	4.606 (.103)	3.424 (.331)
Frust'n/interruption	3.267 (.217)	4.163 (.244)
Annoying traits	1.938 (.402)	6.523 (.089)
Irritations	0.059 (.992)	4.107 (.250)
Total	2.800 (.274)	7.534 (.051)
STAXI		
Anger Expression	7.943 (.015*)	7.584 (.050)
Anger Control	6.343 (.038*)	6.448 (.089)

6.3. Improvement, Reliable Change and Treatment Effects

Given that none of the self report anger measures used yield standardised 'cut off' points for this population which might indicate whether scores had moved within a

'non-clinical' range, analysis of treatment effect on self and staff reported anger was carried out in a number of ways. Firstly, a simple analysis of outcomes was achieved by allocating cases into two categories – "improved" (scores changed in the expected direction) or "deteriorated/ no change". As indicated in Table11, the majority of women improved on most self report scores from pre- to post-treatment, but several who had improved deteriorated on some scales during the follow up period. However, this simple method of categorising improvement is not entirely satisfactory in terms of determining how many and precisely which participants could be considered to have improved reliably on the various measures at various points. Table 11 includes the number of women who improved reliably taking test measurement error into account using the test-retest reliability coefficients for the measures calculated by Novaco and Taylor (2004). The graphs in Figure 4 show where the participants' scores lie in terms of the reliable change with those below the diagonal line showing improvement on all but STAXI Control and NAS Regulation where improvement is indicated by positions above the line. Reliable change is indicated by positions respectively below or above the diagonal lines which mark the confidence limits.

Although numbers were small, 'within-group' effect sizes for change from pre – post treatment and pre- 4 month and 12 month follow up points were calculated by dividing the difference between pre- and post-treatment mean scores on a selection of sub-scales by the standard deviation of the pre-treatment mean (Cohen, 1988; Willner, Jones, Tams & Green, 2002). These are shown on Table 12. The convention of judging these effect sizes to be small (>0.2*sd*), moderate (>0.5*sd*) and large (>0.8*sd*) was adopted (Cohen, 1992).

Effect sizes for anger disposition scores (NAS Total and STAXI Ax/Ex) were consistently large from pre-treatment to post-treatment and four month follow up. From

pre-treatment to twelve month follow up the STAXI Ax/Ex effect size fell just short of Cohen's criteria for 'large'effect sizes were moderate to large. For anger reactivity (PI Total and Imaginal Provocation Test Reactivity sub-scale) effect sizes ranged from moderate to large; and for anger control (NAS Regulation and STAXI AxControl) effect sizes were moderate to large.

Table 11:
Numbers of Women (N = 9) who Improved (and Reliably Improved) at Post-treatment, 4 and 12 Months Follow-up on self rated anger measures (scores changed in the expected direction):

	Assessment point	Improved (Reliably Improved)	Deteriorated/ no change (Reliably Deteriorated)
Anger Disposition			
NAS Total	Pre-post	7 (1)	2 (0)
	Pre-4m	8 (1)	1 (0)
	Pre-12m	6 (1)	3 (0)
STAXI Ax/Ex	Pre-post	9 (4)	0 (0)
	Pre-4m	6 (3)	3 (0)
	Pre-12m	7 (2)	2 (0)
Anger Reactivity			
PI Total	Pre-post	7 (1)	2 (0)
	Pre-4m	6 (4)	3 (1)
	Pre-12m	7 (3)	2 (0)
IPT Reactivity (n=5)	Pre-post	4 (unavailable)	1 (unavailable)
	Pre-4m	4 (")	1 (")
	Pre-12m	4 (")	1 (")
Anger Control			
NAS Regulation	Pre-post	9 (3)	0 (0)
	Pre-4m	7 (2)	2 (0)
	Pre-12m	8 (0)	1 (0)
STAXI Ax/Control	Pre-post	9 (2)	0 (0)
	Pre-4m	6 (1)	3 (0)
	Pre-12m	6 (2)	3 (0)

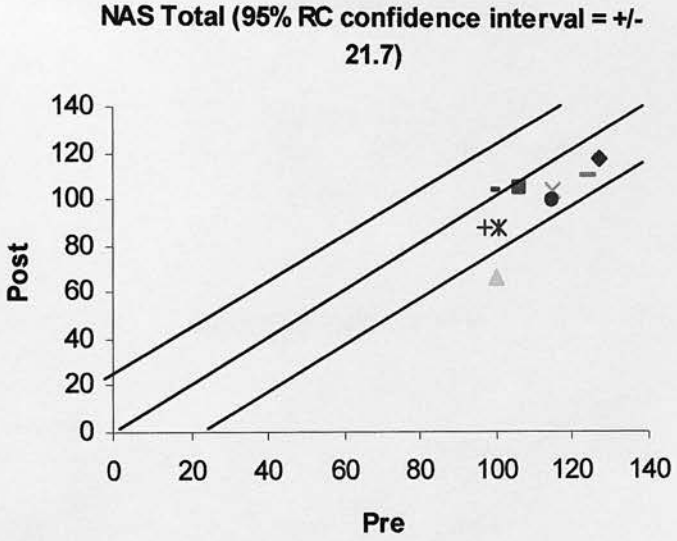
Table 12:
Effect sizes ($(M^1-M^{2)}/s.d.$) between pre-treatment, post treatment, 4m and 12m follow up

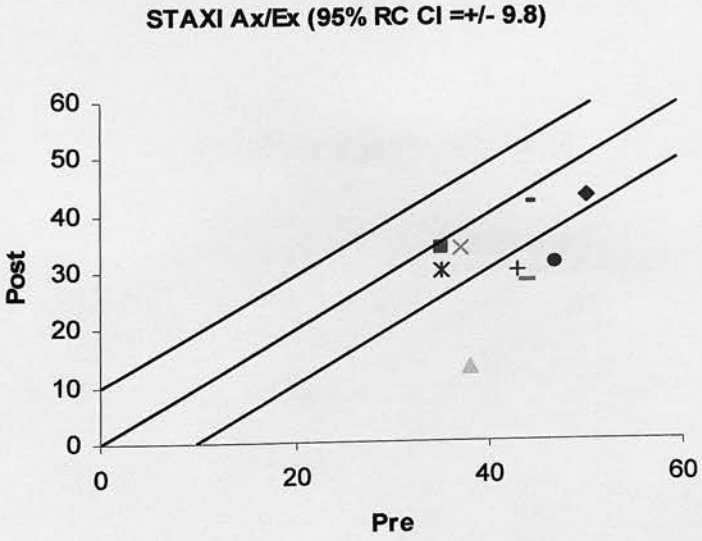
Measure	Effect size *Pre-post*	Effect size *Pre-4m*	Effect size *Pre-12m*
Anger disposition			
NAS Total	0.97	0.99	0.92
STAXI Ax/Ex	1.79	1.29	0.76
Reactivity			
PI Total	0.54	0.94	1.26
IPT (Reactivity) *(n=5)*	1.13	0.94	0.53
Anger Control			
NAS Regulation	1.36	0.97	1.47
Anger Control	2.11	0.70	0.68

These mainly large effect sizes are consistent with those found and reported in relation to other anger interventions whether with populations with developmental disabilities (Willner, Jones, Tams & Green, 2002; King, Lancaster, Wynne, Nettleton & Davis, 1999) or with the general population (DiGiuseppe & Tafrate, 2003). Such effect sizes would be expected given the use of a manual and attention to treatment integrity.

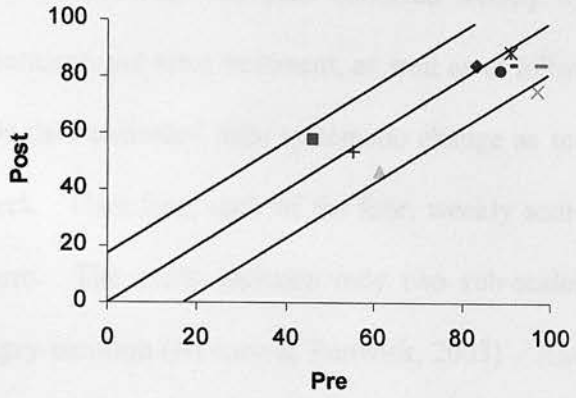
Figure 4: Graphs illustrating number of participants who reliably changed immediately following treatment.

N.B. For Anger Disposition (NAS Total, Staxi Ax/Ex) and Anger Reactivity (PI Total, IPT unavailable) those below the lines have improved; for Anger Control (NAS Reg and STAXI Con), those above the lines have reliably improved. See Appendix 18 for further graphs. Colour coding consistently relates to same participants throughout.

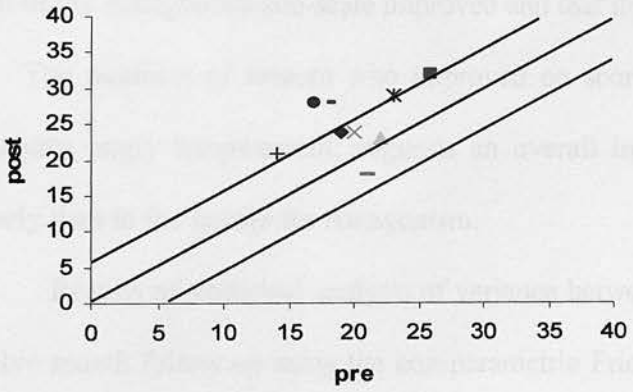




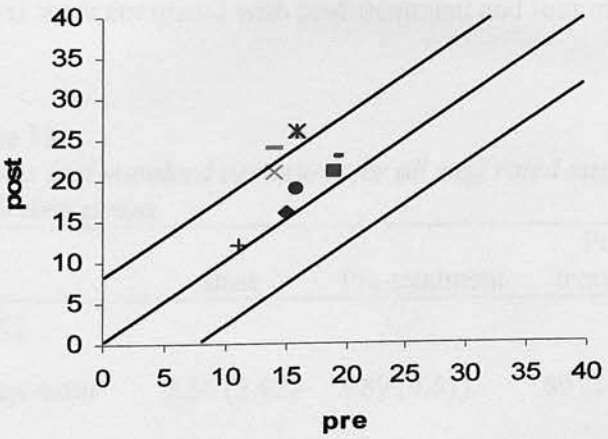
PI Total (RC CI = +/- 17.9)



NAS Reg 95% RC CI= +/-6



STAXICon 95% RC CI =+/-8.16



6.4 Staff Rated Anger (Ward Anger Rating Scale)

This data had been collected weekly for the month before treatment, during treatment and after treatment, as well as at follow up months 4 and 12. Exploration of this data indicated little systematic change as scores varied considerably from week to week. Therefore, each of the four, weekly scores was added to make a monthly total score. The study includes only two sub-scales reflecting aggressive behaviour and angry emotion (Novaco & Renwick, 2003) – Antagonism and WARS B (Anger Index). These had more robust psychometric properties than other sub-scales of the WARS or than total scores. Table 13 below illustrates that most women's scores on the monthly total of the Antagonism sub-scale improved and that this was maintained through follow up. The numbers of women who improved on scores on the WARS Part B, which measures angry temperament, suggests an overall improvement, although much less clearly than in the ratings for Antagonism.

Results of statistical analysis of variance between pre-treatment across four and twelve month follow up using the non-parametric Friedman's Test are shown in Table 12. As with self reported anger, effect size also seemed to be a clinically appropriate way of assessing change and indicated small to medium effect sizes when pre-treatment means were compared with post-treatment and four month and twelve month follow up.

Table 13:
Means and standard deviations for all staff rated anger measures (WARS sub-scales) at all time points

	Base	Pre-treatment	Post-treatment	4 months follow-up	12 months follow-up
WARS					
Antagonism	2.24 (2.92)	3.89 (4.51)	.89 (1.45)	1.33 (1.8)	2.00 (1.8)
Part B Anger Index	31.56 (24.2)	38 (24.6)	23 (20.4)	20.4 (17.8)	33.8 (25.1)

Table 14:
Numbers of Women (N = 9) who Improved at Post-treatment, 4 and 12 Months Follow-up as Rated by Staff on WARS sub-scales.

	Assessment point	Improved	Deteriorated/ no change
WARS Antagonism	Pre-post	7	2
	Pre-4m	8	1
	Pre-12m	6	3
WARS Part B Total (Anger Index)			
	Pre-post	5	4
	Pre-4m	8	1
	Pre-12m	5	4

Table 15:
Effect sizes and analysis of variance from pre-treatment across 4m and 12m follow up o WARS sub-scales.

Measure	*Effect size pre-post*	*Effect size pre-4m*	*Effect size pre – 12m*	*Friedman's Tes F (p)Pre-12m*
WARS Antagonism	0.67	0.57	0.42	4.359 (0.23)
WARS Part B Total (Anger Index)	*0.60*	*0.71*	0.17	*5.198 (0.16)*

for the three scales. The WARS Antagonism sub-scale yielded small to medium effect sizes (d = 0.42 – 0.67 *s.d.*); and WARS Part B (Anger Index) yielded medium

effect sizes ($d = 0.6 - 0.71$ *s.d.*) and a negligible effect of $d = 0.17$s.d. for the twelve month follow up point).

6.5 Subjective responses to treatment materials

The nine women who completed the treatment seemed, to the three therapists who had used the manual before, to have no more difficulty relating to the materials provided in the manual than the men did. Examination and analysis of the Session Reports (Appendix 12) (therapist ratings of Communication, Engagement, Comprehension, and participant ratings of Enjoyment, Learning and Helpfulness) suggested the majority worked well and appreciated the programme. Tables 16 & 17 present the range of participant responses for Helpfulness and Enjoyment at the two phases of the treatment. Mean scores for both of these scales on the 3-point participant rated scale were consistently between 2 ('enjoyed some of it') and 3 ('all of it'), as were mean scores for Learning ('learning a bit/some things' or 'learning lots'). Mean therapist rated scores for Engagement on the 5-point sessional ratings were always between 3 and 4 ('satisfactory' and 'good' respectively);

Table 16:
Session Report scores on Helpfulness - Preparatory and Treatment Phases

Response categories	Preparatory Phase No. of responses	Treatment Phase No. of responses
Not at all	5 (9.3%)	2 (2%)
A bit	15 (22.7%)	29 (29.3%)
In lots of ways	34 (62.9%)	68 (68.7%)

NB. Patients rate each session in terms of Helpfulness on a 3 point scale. Fifty-four session rating sheets were analysed for Preparatory and 99 for Treatment phases.

Table 17:
Session Rating scores on Enjoyment - Preparatory and Treatment Phases

Response categories	Preparatory Phase	Treatment Phase
	No. of responses	No. of responses
Not at all	0 (0%)	1 (1%)
Some of it	9 (16.7%)	24 (24.2%)
Yes, all of it	45 (83.3%)	74 (74.7%)

NB. Patients rate each session in terms of Enjoyment on a 3 point scale. Fifty-four session rating sheets were analysed for Preparatory and 99 for Treatment phases.

The Patient's Evaluation of Treatment Questionnaire – Treatment Phase (Appendix 6) suggested that the elements the participants found most helpful were:

- talking to psychologist and/or staff about their anger;
- understanding how their anger worked;
- using anger logs;
- doing homework tasks;
- using relaxation (although there were several who did not find this helpful).

Results from this questionnaire seemed to represent a range of responses, rather than a clear response set, and patients seemed able to express themselves regarding the areas they did not like or did not find helpful. When asked if they thought they had changed since completing treatment, or if they were any less angry, responses were realistic with the majority indicating improvement, but about a third claiming they were no less angry, and one claiming she had not changed at all. Further evidence of participants' ability to self evaluate their progress realistically was reflected in the slight decrease in

self reported Enjoyment associated with a simultaneous increase in Helpfulness as participants moved from the Preparatory phase to the Treatment phase (see above). This finding was also reported by Taylor, Novaco, Gillmer & Robertson (2004). Two thirds of participants thought they had had just about the right amount of support from staff.

The Patient Competency Checklist (based on therapist ratings – Appendix 8) suggested that a clear majority of participants were rated as competent after the six session Preparatory Phase. After the Treatment Phase (Appendix 9), the majority again fell into the expected end of the spectrum when rated by staff on a longer list of possible competences achieved (Tables 18 & 19 below). The range of mean scores reported for the Clinician Rating Scales (3.67 – 4.33 on a 5 point scale; n= 6) and Goal Attainment Scales (3-3.63 on a 4 point scale; n=8) were each on the positive side of the scales.

Table 18
Therapists' Ratings of Patient Competency at Completion of Preparatory Phase ($n = 8$)

Component Skills Threshold	Number of Patients Meeting Threshold Amount of Ratings as "Competent"
≥ 10	6
≥ 7	1
≤ 2	1
	Number of Patients Meeting Threshold Amount of Ratings as "Not-competent"
≥ 3	0
≥ 2	1
0	7

NB. Therapists rate patients component skills at the end of the Preparatory Phase on an 18-item version of the Patients Competency Checklist (PCC-PP) using 3-point scales where 1 = '*not competent*', 2 = *'limited competence'* and 3 = *'competent'*.

Table 19

Therapists' Ratings of Patient Competency at Completion of Treatment Phase (n = 8)

Component Skills Threshold	Number of Patients Meeting Threshold Amount of Ratings as "Competent"
≥ 17	4
≥ 10	3
≤ 4	1
	Number of Patients Meeting Threshold Amount of Ratings as "Not-competent"
	0
≥ 5	
	4
≥ 2	
	4
0	

NB. Therapists rate patients' component skills on the 31 item Patients Competency Checklist (PCC-TP) as above.

CHAPTER 7 – CASE EXAMPLES

7.1 Introduction

In order to illustrate some of the qualitative aspects of these participants' lives as well as treatment process and outcome, three participants were selected representing a range of responses to treatment. Alternative names have been used and some details have been changed to help anonymise these participants. The first case described illustrates poor outcome. The participant who initially appeared to improve most across most measures post-treatment, in fact relapsed at each follow up point. Therefore another case was also described who displayed a much more consistent pattern of improvement. Each of the three participants will be described, after which each one's progress through pre-treatment, treatment and outcomes will be detailed, and results on a selection of the outcome measures presented in tabular form.

7.1.1 *Terry*

Terry did least well on the main outcome measure following anger treatment and her case is described here. She was a 40 year old woman who had no formal diagnosis of mental illness or personality disorder, although she had been physically and sexually abused. She had been detained under the Mental Health Act category of mental impairment on a civil section for assessment and treatment, four years prior to delivery of anger treatment. She had been assessed as having a full scale IQ of 69, and a reading age of 8 years and 3 months. Her screening scores on the NAS and PI (NAS Total=100; PI Total = 63) were within one standard deviation above the mean for the screening sample.

Her history had included several short hospital admissions from her early twenties, and a previous conviction in 1983 for threatening to kill following which she was sent to a high security hospital. From there she was transferred to a learning disability hospital and received a Conditional Discharge and lived in a hostel. In 1988 she breached a Probation Order and was ordered to hospital under a Section 37 of the Mental Health Act. She was discharged from this seven years later but was readmitted under a Section 3 for assessment and treatment a year later. Three years later a trial leave to staffed accommodation commenced but she was unable to sustain this and was formally readmitted following several short admissions to the forensic service described here in 1998. She had a disturbing family background, had been in institutional care from the age of 14 years and was inclined to self injure and express suicidal ideation during periods of distress. Occasionally she ended up in the local general hospital having self injured to an extent which would be hazardous to her health. She had worked with a Clinical Psychologist during her time in the community on issues relating to abuse, but had been readmitted before this work was complete.

7.1.2 *Amy*

Amy was a 33 year old woman with a diagnosis of mild learning disability and personality disorder, and had a full scale IQ of 64. Despite receiving a variety of psychotropic medication she had no diagnosis of mental illness. Her reading age had been assessed using the WAIS Word, following admission, as 9 years and 6 months. Her self reported anger scores at screening (some 3 months before baseline) were above average with a NAS Total of 104 and a PI Total of 74. The Anger and Aggression Assessment identified that she was perceived as having experienced psychological disturbance, alcohol abuse, self injury and suicidal intent. She had no physical or neurological impairment and no documented history of physical or sexual abuse,

although she had reported childhood experiences to a member of the clinical team and had spent a period of time addressing these issues both individually and as part of a group. She had identified her desire to do this work following her completion of the fire setters' programme.

Amy had a very disturbed childhood during which her reports suggest her father had neglected and abused her and failed completely to protect her from other men. She had been taken into care as a young child then again in her teens. At one point she was returned to her family home and set fire to the house. She was again taken into care and when she left the local authority, she entered into an abusive relationship with a male partner. They had several children, some of whom were themselves taken into care, and she appears to have been a virtual prisoner in her own home. She seemed unable to access support and again set fire to the house whilst her partner was asleep. She then left and was arrested soon afterwards. She was charged with arson, found guilty and sentenced to prison. On her release, and following the birth of another baby, she again set a fire, this time to a car. She was arrested, remanded to prison and then detained under Section 37/41 of the Mental Health Act (1983) to the hospital described here. She had no other history of offending and had been in hospital for six years at the time of offering treatment. She had completed a group programme lasting six months to address her fire setting two years prior to starting anger treatment.

7.1.3 *May*

The third case described here illustrates a much more consistent improvement both across measures and over time. May was a 36 year old woman who had been in hospital for 4 years on this occasion. She had an IQ of 64 and a reading age of 8years and 9 months. She had no diagnosis of mental illness but was labelled as having a

personality disorder. She had a history of both aggression and fire-setting, but no convictions. The latter was during her admission and was said to be an attempt to access psychological treatment as she had heard there was a group running for fire-setters.

May's main problems related to self harm and aggression and she had a history of alcohol abuse and had used cannabis. Her family had significant difficulties with mental health, relationships and substance misuse and this caused her additional distress. She reported sexual abuse by a family member and often shared this with people somewhat inappropriately, becoming tearful and claiming to have visual flashbacks. She was offered a place in a group for survivors of abuse but was unable to use a group approach, demanding repeated individual time throughout, and eventually dropping out. It had been decided not to offer the treatment programme for fire-setters as her history had not incorporated arson prior to the attempt to access psychological treatment. Instead, she worked for some months with a psychodynamic therapist to good effect, starting this work prior to the onset of anger treatment but continuing it throughout. The therapists and nursing staff liaised regularly about May's progress. It is possible that this additional treatment contributed to the improvements which were recorded.

7.2 Response to Preparatory Phase of treatment

The first six sessions (see Figure 2) were designed to educate the patient about the cognitive behavioural model of anger, about self monitoring, about viewing anger as a normal emotion and the physiological effects of stress. During this phase patients also have the opportunity to practice self-monitoring using Anger Log I, and to try out several methods of relaxation including use of music, visualisation techniques and

progressive muscular relaxation. Staff members could sit in on sessions if this is what the participants wished, or be informed at the end of or after the session of session content and progress. Participants were encouraged to use staff for support in carrying out homework tasks.

7.2.1 Terry's response to preparatory phase

Terry engaged well with therapy, and her sessional scores on therapist ratings of communication, engagement and comprehension indicated that she consistently made good contributions which were relevant to discussions, that she demonstrated a good level of engagement, and that she had good comprehension of all parts of the sessions. Scores ranged from 3-5, with a modal score of 4. Her own sessional ratings indicated that she consistently enjoyed all of the sessions, and reported that she learned 'a bit' or 'a lot of things', and that sessions were either helping her 'a bit' or 'in lots of ways'.

Clinical session notes indicate that Terry took part well and illustrated a level of understanding which seemed to bode well for the rest of the treatment. She had indicated early on that she would be happy to seek support from staff, although in fact she failed to engage this help for her first attempt to complete anger logs for Session 3. However, for the next session, she had completed an anger log each day, unaided, and enjoyed learning relaxation strategies during the session. During Session 5 she completed the exercises designed to consider the costs and benefits of becoming angry and aggressive, and to gauge participants' motivation to change and continue with treatment. These exercises suggested good motivation and the intention of continuing. During the post-preparatory review with a member of the nursing staff, she gave formal consent to continue and said that she had found relaxation sessions particularly helpful thus far.

At this stage she also completed the Patient Evaluation of Anger Treatment – Preparatory Phase and the Clinical Coordinator completed the Staff Competency Checklist and the Goal Attainment Scales for Emotional Awareness and Expression. These all suggested she was doing well. The former indicated that she was 'competent' in just over half of the specified areas, whilst the latter rated her as having 'good ability to identify and describe emotions in self and others'; 'good ability to express emotion appropriately both within and out-with sessions'; and 'good ability to be able to identify appropriate coping strategies and some evidence of actual use'. Terry rated nearly every aspect of the treatment as 'very helpful' except for "finding out what anger treatment is all about" and "learning that our thoughts affect our feelings" which she found 'a little helpful'. She felt she had changed 'a lot for the better' as she was "not flying off the handle so much" and was "more able to walk away from situations". She asked for more relaxation in future sessions. No psychometric self rated measures of anger were taken at this point, but staff were also rating Terry's anger on the Ward Anger Rating Scale throughout treatment. This indicated that she displayed only one example of verbal or physical behaviours associated with anger and aggression (WARS Part A) on one occasion, and low-moderate levels of anger attributes during three of the weeks (as measured by WARS Part B total), and during these first six weeks.

7.2.2 Amy's response to preparatory phase.

Amy was offered treatment as part of the first cohort, starting in the autumn of the first year of the project. She was assigned a psychology trainee as therapist and attended regularly. The session notes and the report circulated on completion describe a contradictory picture, which may help to explain her apparent progress following treatment, but significant relapse thereafter. Throughout Preparatory Sessions, Amy insisted she had done the work before and knew all about it, from her Fire Setters'

Group, which had incorporated four sessions of work on anger management. She seemed to demonstrate this fairly well, showing a good understanding of the cognitive behavioural model, an ability to use relaxation and assertiveness. Despite her ambivalence she demonstrated a good ability to engage with the therapist and to share personal information appropriately. She was receiving positive feedback from the clinical team during this time as she had been managing her angry feelings very well and had been moved on to the Bungalow which was used as a step to taking greater responsibility. She was managing well despite two significant personal difficulties with which she was grappling: her longstanding partner was leaving hospital soon and she was negotiating contact with one of her children via a solicitor. Amy never managed to complete homework tasks regularly, completing only one Anger Log during the preparatory stage. By Session 5 she expressed a wish to give up the treatment but was persuaded to try Session 6 after which she could more formally review her decision and consider whether the Treatment stage would offer newer material for her. Whilst she could rate enjoyment of most sessions, she usually completed the sessional rating item on whether she was learning anything from the sessions as, "No, nothing at all".

7.2.3 *May's response to the Preparatory Phase*

From the first session May seemed keen to take part in the treatment programme, and although she was not already familiar with each of the concepts covered in the Preparatory Phase, quickly grasped them through the discussion and exercises within the session. She was able to make good contributions and was diligent with her homework, requesting staff to support her in this. This may have reflected her tendency to form dependent relationships with others, rather than reflecting poor literacy skills. She particularly enjoyed the relaxation and was readily able to generate a mental image of herself with a favourite pet to help her relax. She completed the

Preparedness for Therapy Questionnaire (Keijsers, Schaap, Hoogden, Hoogsteyns & de Kemp, 1999) after Session 5 and scored 34 out of a possible 40, indicating a high level of motivation. Throughout the Preparatory Sessions she rated the sessions consistently as "enjoyable", and reported that she was learning from them. She was less confident that the sessions were helping her and rated the first two as "not helping", the second as helping "a bit" and the two of the next three as helping "in lots of ways".

7.3 The Treatment Phase

The Method section details the twelve treatment sessions and the way in which they adapt cognitive behavioural methods used by Novaco in his well developed therapeutic programme for treating anger problems. They incorporate relaxation, cognitive restructuring, stress inoculation, effective communication and problem solving. The following sections will detail the three selected participants' responses throughout this phase.

7.3.1 Terry's response to treatment

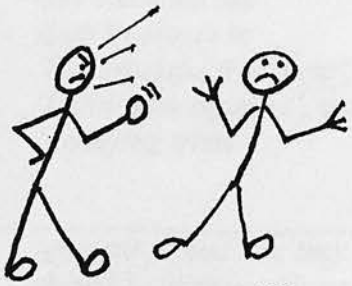
After a short break during which Terry was on a holiday, the treatment sessions were started. She was able to recall the six preparatory sessions, and moved on to work with her therapist to a shared formulation of her own anger problems and to develop an anger hierarchy (for future use in stress inoculation procedure). This was written down on a linear diagrammatic model of a cognitive behavioural understanding of anger which was illustrated by the author of the manual using consistent cartoon imagery throughout (Figures 5 & 6). The formulation considered the kinds of situations she had described on her logs thus far, the kinds of thoughts she expressed in discussing these, the way in which her angry feelings affected her and lasted for a long time and her

Figure 5:

HOW ANGER WORKS

What's going on around you

SITUATION
something or someone annoys or upsets you



THOUGHTS
about the situation

What's going on inside you

FEELINGS
about it
i.e. ANGER

How you behave

REACTION
i.e. what you do about it

What happens afterwards

CONSEQUENCES
i.e. what happens to you and others afterwards

Figure 6: HOW ANGER WORKS FOR TERRY

What's going on around you	**SITUATION**	*People accusing me of things I haven't done. People bothering me when I want to be on my own. Being ignored, for example, talking to someone and they blank me out. High PI scores in 'Disrespectful treatment', 'Unfairness/injustice', and 'Annoying traits'*
	THOUGHTS	*Ignorant so and sos; they should be friends with me – (justification)*
What's going on inside you	**FEELINGS**	*Takes a bit of time to build up – tight stomach.*
How you behave	**REACTION**	*Shouting abuse at people; swearing; threaten to hit people; "might try and hit them" – impulsivity*
What happens afterwards	**CONSEQUENCES**	*Panicky and frightened if I can't get away – hurt myself.*

understanding of the consequences. Thus the cognitive behavioural formulation considered the presenting problems in the 'here and now', checking this information against the highest self report scores on the various sub-scales of the NAS and PI.

The areas of provocation which caused her most difficulty as identified by the PI were 'Disrespectful treatment', 'Unfairness/injustice', and 'Annoying traits'. These self report scores were reflected well in her Anger Logs ("People accusing me of things I haven't done"; "People bothering me when I want to be on my own"; "Being ignored, for example, talking to someone and they blank me out"). On the NAS, the domain scores which caused her most anger were 'justification' within the Cognitive domain, 'duration' within the Arousal domain and 'impulsivity' within the Behavioural domain. These were reflected in the way she described her thoughts ("Ignorant so and sos; they *should* be friends with me" - *justification*). They were also reflected in her description of her own anger ("Takes a bit of time to build up"; "Time taken to calm down depends on how long you have felt like that"; "Panicky and frightened if I can't get away" - *duration*); and in her description of her reactions ("shouting abuse at people"; "swearing"; "threaten to hit people"; "might try and hit them" – *impulsivity*).

The next stage of monitoring anger was introduced with Anger Log II now incorporating an instruction to note "What were you thinking?" Terry seemed to grasp this and staff were alerted to this change and asked to offer support between sessions. However, during the next session it became apparent that as the week went on Terry forgot how to complete this section of the new Log. Initial logs had been accurate in this respect, but as the week went on the therapist found she had reverted to recording how she felt and what she did, whilst omitting the cognitive aspect of the incident. Terry continued to demonstrate that she could benefit from relaxation and now started to learn progressive muscular relaxation during sessions, clearly benefiting even when

somewhat agitated or "high". During Session 9 the stress inoculation procedure was introduced using the first and least anger provoking incident included in the anger hierarchy which had been developed in the previous session. This hierarchy incorporated scenarios from recent times in the hospital ward covering about a year. Participants are not expected to address extremely traumatic scenes from the past in this form of therapy. Terry reported having a little difficulty imagining the scene (feeling irritated by another woman picking her nose at the tea table), but said she managed to imagine herself coping well. She was given an audio-tape after this session to practice her progressive muscular relaxation as homework.

By the next session she seemed to have developed a better grasp of the cognitive component of self-monitoring but reported that although she had used her relaxation tapes, she had not done the exercises, but had focussed on the relaxing image she had developed in the early preparatory sessions. She worked well through a cognitive restructuring exercise, working through a sheet which divided the "Actual" way she perceived and dealt with an anger situation from a "Possible" way of perceiving and dealing with the same situation, intending to illustrate how changing thoughts can change feelings and reactions. This session took place the week before Christmas, which can be a difficult time for people restricted from contact with family, or with memories of difficult Christmases in the past, but despite this, Terry seemed highly engaged both within and between sessions. She reported that she had found "learning to put myself in other's position in order to think differently" as the best bit of the session, and commented that it was all "helping me calm down a bit".

Following a three week break, treatment resumed. Terry completed thirty-eight Anger Logs II between Sessions 7 and 12. Of these, 33 incorporated Thought Catching with the others stating something about an event or describing her emotion. She had a

little more difficulty generating alternative thoughts in the in-session cognitive restructuring exercise, and worked willingly, though not without difficulty generating the angry image, on stress inoculation and relaxation. Between then and the next session, she spontaneously used alternative cognitions in two anger situations to good effect, which led nicely to the introduction of Anger Log III at this point. This log incorporates a new section which asks, "What other thoughts could you have had in this situation?" and instructs participants to "Try to put yourself in the other person's shoes". This session also introduced role play exercises to enhance generalisation of cognitive and behavioural skills which could then be incorporated into stress inoculation when asking Terry to imagine using her newly learnt coping skills to cope better with the imagined anger situation (staff told her they would be reporting the fact that she had refused two meals in a row). The therapist rated Terry particularly highly after this session in terms of her contributions being consistently relevant and actively relating issues beyond the limits of the session.

During the next session a self instructional statement was introduced, which was "Terry, think before you open your mouth and stay calm". She had misunderstood the new anger log to some extent and had incorporated how she should have behaved rather than alternative ways of thinking about the situation. She again had difficulty with the role play exercise, this time in taking it seriously, but enjoyed progressive relaxation as usual. The next session introduced effective communication incorporating the ideas of assertiveness versus passive or aggressive responses and despite two weeks annual leave for the therapist, she continued to work well with all the aspects of treatment which had by now been incrementally added in to the sessions: reviewing anger logs; cognitive restructuring; developing new skills in assertive communication; role plays; stress inoculation; and relaxation. The stress inoculation related to the second most

difficult scene from her hierarchy by this time (disappointment when her daughter failed to turn up to visit several weeks previously). She and the therapist worked towards integrating these components of the treatment into a logical sequence for the purposes of a relapse prevention plan. She completed 34 Anger Logs III, and of these 12 could be described as Cognitive Restructuring. The others had nothing in the space allocated to restructuring, said "nothing", or simply described her behavioural response.

During the last week of treatment Terry had reported feeling low and angry, and this was reflected in the staff rated WARS. She had injured herself, and related this to rumination about past unpleasant experiences, as well as to the prospect of anger treatment ending. It may well also have been a response to imagining the disappointment after the failure of her daughter to visit, and the fact that this lasted for several days confirmed her earlier descriptions of anger and distress. The therapist explained that there would be post-treatment assessment, reports to complete and that maintenance sessions could be arranged for her, especially during periods of high stress. This discussion took up the time of the session and the final scene from the anger hierarchy was not addressed. This is not unusual if this final example relates to something very difficult from the past. In this case it related to her sense of injustice when staff accused her of doing something which put another patient at risk about a year previously.

Maintenance work had been intended to involve nursing staff, but eventually an Assistant Psychologist was asked to carry out supervised sessions due to pressures of work on the nursing staff. These sessions have continued over a period of nearly two years, whilst Terry has moved between different flats and houses within the women's service and may be reflected in improving scores over follow up.

7.3.2 Amy's response to treatment

Despite the misgivings described previously, Amy agreed to continue through treatment, though would not formally complete the exercise looking at 'costs and benefits' of working on anger problems. She did state that she would try anything to tackle her anger problems, and never denied this was something she should keep working on, but insisted she already knew what was being covered in the treatment programme. Throughout the second stage of treatment she continued to engage well with the therapist and was keen to discuss relevant incidents during sessions. She only ever completed one copy of Anger Log II for homework and one Anger Log III in the session. She usually enjoyed relaxation but did not seem to practise out-with sessions, and did not believe progressive muscular relaxation worked for her. Stress inoculation had limited success within sessions as she found it hard to get aroused when imagining the scenarios she had described earlier for her Anger Hierarchy, and never really got past the third item in the hierarchy, as she started to introduce significant current concerns which took the therapist a lot of time to address. She was well versed with assertiveness, perspective taking, was familiar with the effects of rumination and had some skills in deescalating a situation by distracting herself and walking away.

During Session 16 she raised her anxieties about her forthcoming Case Review and the therapist fed back that she had demonstrated good skills in anger management, but had perhaps engaged less well in anger treatment, *per se*. She found the exercise of developing a step wise Personal Reminder Sheet for dealing with Anger Incidents fairly straightforward and it needed little revision by the therapist.

Examination of the Anger Logs II and III produced between sessions 7-12 and 12-18 respectively indicated a paucity of Logs with only one Anger Log II completed, with the therapists support in Session 11. This did clearly contain evidence of Thought

Catching ("The fat cow wouldn't make me a cup of tea. Why should I make her one?"). The one Anger Log III was completed in Session 15 and although there was again an example of Thought Catching, there was no evidence of any Cognitive Restructuring as this space on the Log was left blank.

7.3.3 *May's response to treatment*

During the first few sessions of the Treatment Phase, May had some difficulties separating her work with the psychodynamic therapist, becoming tearful at times, but after initial reassurance she was able to get back on track with the anger treatment on each occasion. Because of this, completion of all exercises was not possible every time, but Abbreviated Progressive Muscular Relaxation was always prioritised at the end of sessions as she enjoyed and clearly benefited from this.

As the cognitive aspects of the treatment were introduced more explicitly, May struggled a bit, but managed to grasp taking another person's perspective. Unfortunately she seldom completed even one Anger Log, although she often acknowledged that an incident had occurred and worked through this in the session. She became a little upset that she found this aspect of treatment so difficult, but again, reassurance that she was not expected to understand it immediately allowed her to work more productively with the exercises. During some sessions the examples from her Anger Hierarchy were used to illustrate cognitive restructuring and this was incorporated into role play which May managed well. She was usually able to identify unhelpful or dysfunctional thinking which had made her feel angry, and was able to consider alternative ways of thinking with prompting. She was practising relaxation very regularly at this time, although she said she was not wholly comfortable with the male voice on the tape.

At the end of each of the last three sessions she became tearful, and at the second last she acknowledged she was worrying about how to cope when treatment sessions ended. Despite her frequent tearfulness throughout the Treatment Phase, she rated sessions as mainly helping "in lots of ways" and occasionally helping "a bit". She rated them alternately as wholly or partially enjoyable and that she was learning "a bit/some things" or "lots of things".

Therapist ratings of communication were at average or above average levels ("Contributions generally relevant"; or "Good contributions relevant to discussion"). Ratings of engagement were at a similar level ("Satisfactory engagement in session"; or "Good level of engagement in session"). Unfortunately it seems likely that the therapist worked collaboratively with May and asked her to keep her own folder with Anger Logs and copies of these were not kept.

7.4 Outcomes

Table 20 below details each of the women's progress through treatment in terms of anger disposition, reactivity and control. These will be discussed below.

7.4.1 Terry

For Terry, the description of the process of treatment, taken from therapist's session notes suggest that treatment was carried out very thoroughly, entirely according to the manual, and seemingly went well throughout, apart from the difficulties just prior to ending. However, Terry was included here because she was the individual who did least well between pre- and post treatment. Looking at change during this period in anger disposition, it can be seen that the NAS Total score remains exactly the same at a level within one standard deviation above the norm, although this starts to drop off during the 4 month follow up period. Within this Total score, there were slight changes with small rises in Arousal and Regulation, but a slight fall in the Behaviour domain.

As mentioned above, anger control increases very slightly, as measured by the NAS Regulation sub-scale, and by the STAXI Control sub-scale. Clearly this is the desired outcome, perhaps reflecting what Terry seemed to be reporting throughout, and continues to increase during 4 month and twelve month follow up on one measure, but drops away a little by twelve month follow up on the other. Total scores on the Provocation Inventory increased, rather than decreased, to a greater extent than they did for any of the other participants. The increase in the total score was not accounted for by any of the subscales in particular, but by small increases across each, apart from "annoying traits".

The only repeated measure of anger taking place on a weekly basis which could reflect anger expression and disposition throughout the period of treatment, was the staff rated WARS, which as mentioned above, indicated a slight rise in both Part A and B during the last two weeks of treatment. This suggests that the scores obtained post-treatment may be influenced by that bad patch she was going through. At this time she may have been frustrated that she had been moved back into the main ward as she had expected to move back onto the bungalow unit following its redecoration.

Terry's own evaluation of the treatment, based on the Patient's Evaluation of Anger Treatment – Treatment Phase questionnaire suggested that sessions were worthwhile and helpful, and that she had enjoyed some of these sessions. She still said she found relaxation most helpful, as well as learning different coping strategies and using anger logs as a way of getting things off her chest. She rated 'thought catching', doing an anger hierarchy, using the relaxation tape, using self-instructions, role playing and problem solving as "a little helpful". She rated working out what makes you angry, learning to do relaxation, practicing coping well in imagination, putting yourself in other's shoes, understanding which situations you are sensitive to, working on

rumination and escalation, developing a personal reminder sheet, talking about problems, recording thoughts and feelings in Anger Logs, doing homework and working with nursing staff as "very helpful". She thought she had changed "a little for the better", felt less angry than before and felt she had received "a bit" of help from nursing staff.

In terms of staff and therapist evaluation after treatment was complete, using the Anger Treatment Patient's Competency Checklist, Terry was rated as "competent" in every one of thirty-one areas apart from eight, despite the lack of change in self report measures of anger. These eight included understanding the anger formulation, understanding attentional focus and expectations, generating self instructions, construction of a realistic, step-wise script for preventing anger problems, maintenance of anger control in imagination and role play of coping skills. The therapist commented that the nature and level of need within the client meant maintenance of progress would be fragile unless directly addressed in a planned way

In this case, the therapist took care to feedback on nearly every session to the nurse on duty, and this may have enhanced the quality of the experience of anger treatment experienced by Terry. However, when attempts were made to ensure Terry received a weekly anger maintenance session via nursing staff, this proved difficult and a psychologist was made available for this work, under the supervision of the original

Table 20:
Scores on selected anger measures for case studies illustrating a range of outcomes

-	Terry				Amy				May			
	Pre	Post	4m	12m	Pre	Post	4m	12m	Pre	Post	4m	12m
Disposition												
NAS Total	106	106	94	89	100	67	104	100	115	100	91	99
STAXI Ax/Ex	35	34	27	30	38	13	38	34	47	31	24	38
Reactivity												
PI Total	46	58	66	39	61	47	62	59	87	89	62	59
IPT Reactivity	-	-	-	-	-	-	-	-	21	12	15	12
Control												
NAS Regulation	26	28	30	32	22	29	29	29	23	29	19	23
STAXI Control	19	21	24	17	16	26	27	29	16	26	14	17
Staff Rated Anger												
WARS Antagonism	0	2	0	2	0	0	1	0	0	0	0	2
WARS Anger Index (Part B)	10	29	5	29	1	0	10	13	41	34	16	78

therapist. This maintenance work may well explain some of the improvements observed between treatment completion and 12 month follow up. .

7.4.2 *Amy*

In terms of self report anger scales, Amy appeared to improve significantly (with changes in the expected directions of at least one standard deviation) across the board immediately post treatment, but had consistently relapsed by 4 and 12 month follow up. Her post treatment scores were significantly below the mean in nearly every outcome scale and sub-scale. It seemed that Amy was not displaying any angry feelings as staff rated WARS gave little indication of her difficulties, although the WARS Anger Index did illustrate her relapse with higher scores at 4 and 12 month follow up.

By the end of treatment Amy was able to review her overall progress, which had clearly been positive, though not entirely attributable to the anger treatment. She felt upbeat at this point as it was just before Christmas, a time she enjoyed in the hospital. Although she still rated her learning as very minimal following each of the individual sessions, her overall rating of which elements of treatment were helpful had shifted slightly in a positive direction when compared with that completed following the Preparatory Phase. By comparison, staff ratings were consistently positive, rating Amy as "competent" across every element of treatment both after the Preparatory Phase and for 28 out of 34 items following completion of Treatment Phase. The items staff and therapist expressed doubts about were "understands the dimensions of her own anger problem – analysis and formulation" (and this may have made the crucial difference between anger management and anger treatment for Amy); "comprehends the notions of attentional focus and appraisals" ; "ability to use

and benefit from Abbreviated Progressive Muscular Relaxation", as they knew she did not like it; "ability to maintain anger control in imagination"; and "demonstrates regular use of APMR and cassette tape".

The Clinician's Rating Scale, completed by nursing staff, indicated that by comparison with 12 months ago, she was much more tolerant of frustration; a little more sensitive to others' needs; no more or less sociable; a little less irritable; and no more nor less tense or defensive. They commented on the fact that the treatment coincided with major changes for Amy including a change of unit, her partner's imminent discharge and her negotiations about her child. The Goal Attainment Scale completed by staff also indicated that Amy was 'Very Good' at describing emotional states, and 'Good' at demonstrating appropriate emotional expression, and at using appropriate coping strategies.

7.4.3 *May*

Self report anger scales indicated a consistent change in the expected directions between pre and post treatment of approximately one standard deviation in all but the PI sub-scales Annoying Traits and Irritation, in which her scores rose, resulting in a reduction in PI Total score of just over a third of a standard deviation. Similarly, scores in Trait anger as measured by the STAXI indicated a reduction between pre- and post-treatment of just over half a standard deviation. Increases in anger control were very significant with increases in scores on NAS Regulation and STAXI Anger Control of one and a half and over two standard deviations (Table 20).

Staff report on the WARS Antagonism sub-scale was consistent with the other cases reported in that scores were so low to start with that no change could be perceived. The Anger Index suggested that a higher level of anger was observed in

the month before treatment but that this had reduced significantly by the month following treatment, was again observed to be lower still at 4 month follow up but was unfortunately at its highest level at 12m follow up. The Clinician's Rating Scale indicated that May was 'a little better' than twelve months ago in terms of tolerance for frustration, interpersonal sensitivity, tension and defensiveness. Staff rated her as 'much better' in terms of sociability and in terms of irritability she was rated as 'much the same'. The Goal Attainment Scale described her as being 'satisfactory' at describing emotional states, 'good' at demonstrating appropriate emotional expression and recognised her ability to use appropriate coping strategies as 'very good'.

7.5 Discussion

These detailed accounts of treatment and outcome illustrate the way in which clinical outcome is influenced by many variables, all of which cannot be controlled. Although this study managed to control in a number of ways (set inclusion criteria; standardised assessments; standard assessment points; standardised, manualised intervention) in a clinical setting it is not ethical or possible to control other treatments or life events. For these women life events appeared to influence outcome (split with boyfriend and legal negotiations regarding children in care for Amy). It is also impossible to exert total control over the way in which the intervention is delivered and variability in length of treatment, therapist factors and level of support offered by nurses may well have played a part in determining outcomes for these women. Terry's therapy, delivered by a senior member of staff, took place over a four and a half month period, rather than the proposed ten weeks which would follow

from eighteen sessions delivered twice weekly, and allowing for post-preparatory review. It had been hoped that therapy started at the beginning of October could be completed before Christmas. However, comparing the time taken for Terry with that taken in other cases with better outcome, it can be seen that occasionally, less senior therapists took almost as long for other reasons (for example days available for therapy determined by other training priorities such as teaching). Thus previous suggestions that there is a relationship between outcome and frequency of treatment delivery for people with developmental disabilities may be misplaced. Using a wider range of staff as therapists seemed to have reduced adherence to protocol.

Starting and ending therapy could in itself be construed as a life event for these women, some of whom are very dependent on relationships with key staff in the service. It was clear that Terry was sad that therapy had ended, but had been sad and angry prior to that, perhaps anticipating that ending, or perhaps following induced anger in imagination regarding her daughter during stress inoculation sessions. Amy's improved scores following treatment could have reflected her eagerness to please her therapist as she had clearly enjoyed the therapeutic relationship. In fact, sadly, her therapist had suddenly and unexpectedly died during the holiday period just after treatment had finished and the improved scores may still have reflected a desire to display her loyalty to the therapist. Had the improvement been a result of a sense of containment provided by the consistent, structured therapeutic space, it is unlikely that her post treatment scores, following news of her therapist's death would have reflected such gains. Subsequent deterioration may have reflected distress following the therapist's death, but reports did not note any

display of particular distress or sadness, other than what might have been appropriate following the sudden death of a temporary acquaintance.

Family relationships are often sources of extreme distress for this client group following at the least, disappointment or neglect or, at worst, prolonged sexual and physical abuse. They may have been let down badly by parents in the past and this may continue to happen. Or they may have children who have been taken into care resulting in sadness and frustration, anger at themselves and their own situation, and behaviour which prevents them fully parenting their own children. Completing post treatment measures at such a time may have skewed the results, and more frequent measures would be necessary to address this problem.

The study did not set out to dismantle the most helpful elements of treatment, but in Amy's case, one possible explanation for the relapse may well be the way in which she avoided truly engaging with the collaborative nature of cognitive behaviour therapy. Despite using self-management skills well to avoid anger situations, or to express her feelings at times, the therapist and Amy failed to elicit a shared formulation with subsequent linked strategies incorporating restructuring of cognitions. The main difference between May and Amy was in the way in which they perceived the anger treatment programme. May felt she was consistently learning a lot. Amy had felt she was not learning anything new. May, by comparison, did not find the cognitive aspects easy to follow, but seemed to be prepared to engage with the ideas and grasped them through discussion in the sessions. Use of these cognitive aspects such as perspective taking, acknowledgement of the role of expectation and appraisal and role play of these issues may have helped May maintain the progress she made. Additionally, the unit

she lived in accommodated less women, was quieter, perhaps leading to lower arousal levels, and staff may have had more time to develop nursing care plans which supported the maintenance of the programme. A relaxation group was initiated, which became a ward women's group, and this too may have enhanced the benefits of the anger treatment programme. Such a group had not been set up on the main unit where Amy was placed.

The case studies also illustrate some of the difficulties in judging whether outcome is positive – participants who at first appeared to improve went on to relapse and vice versa. Thus factors such as those mentioned above continue to have a very significant impact on progress even after the intervention is complete. What is difficult to ascertain is whether elements of the treatment itself impacted on progress through follow up. The significant progress May made was at odds with staff assumptions, given her difficulty engaging in structured group work previously. She clearly valued the one to one time in therapy and had perhaps learned something about boundaries and what might be expected during a therapeutic encounter from psychodynamic work she had undertaken previously. It may have been that she was more contained at the point of starting anger treatment than she had been previously and was therefore better equipped emotionally to undertake the work. Terry's case would suggest that elements of treatment were important despite life events, as the maintenance sessions she received seem to have allowed her to become less angry over time, despite changes in therapists delivering these maintenance sessions.

CHAPTER 8 – RESULTS III – STAFF INVOLVEMENT

8.1 Staff Views of Anger Treatment

The Staff Questionnaire was completed at the end of the treatment phase of the project and ascertained qualified staff's views of the project and any benefits they anticipated. Table 21 illustrates a selection of results. Interestingly, as with the men's project, perceptions of the potential benefits of the project were influenced by staff length of service, with those serving longer as nurses demonstrating a more pessimistic view of the benefits of anger treatment. However, 85% of staff thought the patients who had received anger treatment benefited 'to some extent' or 'a great deal', 71% rated their experience and involvement with the anger project as 'positive' or 'very positive' and 71% said they felt they learned something about anger treatment 'to some extent' or 'a great deal'. One nurse said she had learned nothing at all.

When asked directly whether they believed their knowledge and involvement of the women's anger treatment project had an effect on the way they dealt with other patients' anger problems, 50% thought it had 'to some extent' or 'a great deal', whereas 35% conceded 'probably not' or 'not at all'. Staff identified a wide range of ways in which they had changed their practice, including five staff who said, in different ways, that they had a greater understanding of how anger works and how to recognise it in patients, three who seemed to be using some cognitive techniques with patients and one who had learned new ways of helping patients to relax.

When asked whether they felt other patients had benefited from the project, whilst 43% of staff said "not at all" or "probably not", 47% thought "maybe" or "to

some extent". When asked more specifically how other patients may have benefited, four thought the wards had benefited by being calmer generally, seven described techniques which had been applied to other patients and four thought staff had become more understanding of anger problems in general ways. When asked to give suggestions about improvements to the anger programme, staff made a variety of suggestions including more formal staff training (which had been offered initially but which had not been possible due to difficulties releasing staff); access to the treatment

Table 21:
Nursing Staffs' Ratings Concerning Their Involvement in and Reaction to Anger Treatment using the Staff Questionnaire (SQ)

	Named Nurses' Ratings ($N = 14$)	
SQ Question	Mean (*SD*)	Mode
1 Did patients benefit from the anger treatment they received?	4.00 (.55)	4.0
3 Was your experience of and involvement in the anger treatment project positive?	3.86 (.66)	4.0
4 Did you learn anything about anger treatment from your involvement in the project?	3.64 (.93)	4.0
6 Has your involvement in the anger treatment project had an effect on the way you deal with other patients' anger/aggression problems?	3.21 (1.42)	4.0
8 Do you think that (other) patients on your villa/unit have benefited from some patients receiving anger treatment and/or your involvement?	2.79 (1.12)	4.0

Note. The rating scale for questions 1, 4, 6 & 8 was: *'not at all'* = 1, *'probably not'* = 2, *'maybe'* = 3, *'to some extent'* = 4 and *'a great deal'* = 5. Question 3 also had a 5-point scale where 1 = *'very negative'* and 5 = *'very positive'*.

manual; formal feedback sessions; more routine inclusion of nursing staff in therapy sessions; staff provision of a list of angry incidents for participants to use in sessions; extension of the treatment to all patients including those of lower cognitive ability; group relaxation sessions on the units; and group maintenance sessions. The need for staff training or induction to the treatment approach was emphasised again by about 50% of respondents when staff were asked how the programme could be improved to enable them to support the treatment work. One person repeatedly suggested that work like this had been ongoing before the project started and suggested that therefore the treatment project may have little effect.

8.2 Did Staff Support Increase Over Time?

Consideration was given to the way in which an ongoing outcome research project on anger treatment could affect staff behaviour, as previous findings in the same service had suggested a systemic effect causing baseline to pre-treatment improvement for those in a waiting list control group (Taylor, Novaco, Guinan & Street, 2004). Those control group gains, coupled with clinical observations, prompted the conjecture that there may have been a systemic effect or a diffusion of the treatment intervention across the whole forensic service. The Staff Interview was an attempt within this study to measure how much such a project might have impacted on staff behaviour, whether they generalised what they had learned and whether support for patients in understanding and controlling their anger increased over time.

Each Named Nurse was interviewed using the Staff Interview after their patient's anger treatment was completed, and again at the end of the project, which was up to twenty-one months later. It should be noted that staff interviewed after the

project were exactly the same nurses as those interviewed during the project apart from two who had taken on the role of Named Nurse for two patients. During this follow up period for earlier participants in the project, anger treatment continued to be offered and delivered to new patients, so the anger assessment and treatment work on the units did not cease.

Table 22 below illustrates how staff support changed between these time points. It shows that when staff were offering support to their patient in various ways, this clearly increased as time went on, suggesting a diffusion effect. When they were offering support to other patients this seemed to increase even more, though perhaps this related to the increased numbers of patients then involved. However, significant numbers of staff were still rating that they "never/seldom" helped. A particularly interesting finding here related to how sympathetic staff felt towards their own and others patients regarding their anger problems. A significant proportion of staff felt less sympathetic to patients' anger problems following treatment and this proportion increased after the follow up period. Where staff did feel more sympathetic after treatment, this sympathy reduced noticeably after follow up.

Table 23 illustrates ways in which learning about the anger treatment approach may have influenced staff to apply this and whether the frequency of application may have changed over time. Table 23 also indicates that any application or generalisation of elements of anger treatment to others reduced as time went by. Staff were initially able to acknowledge applying the techniques to friends and family, but this dropped off by the end of the follow up period. However, they consistently denied applying techniques to themselves or their colleagues.

Table 22:

Staff support for those receiving anger treatment post-treatment and post-project.

Response	Post treatment rating	Post project rating
Helped her complete an anger log never/seldom	54%	43%
Helped her complete and anger log often/very often	18%	31%
Prompted her to use relaxation never/seldom	27%	21%
Prompted her to use relaxation often/very often	45%	55%
Talked through an anger situation never/seldom	18%	21%
Talked through an anger situation often/very often	45%	43%
Became less/as sympathetic to her anger	64%	86%
Became more sympathetic to her anger	36%	14%
Helped others complete an anger log never/seldom	18%	21%
Helped others complete a log often/very often	9%	43%
Prompted others to relax never/seldom	18%	0%
Prompted others to relax often/very often	45%	78%
Became less/as sympathetic to others' anger	27%	71%
Became more sympathetic to others' anger	73%	29%

Table 23: Frequency and subject of application by staff of elements of anger treatment techniques post treatment and post project.

Response	Post treatment	Post project
Used elements to tackle other problems never/seldom	18%	14%
Used elements to tackle other problems often/very often	36%	35%
Used elements to help other patients never/seldom	0%	0%
Used elements to help other patients often/very often	45%	14%
Used elements to help family never/seldom	36%	64%
Used elements to help family often/very often	18%	14%
Used elements to help friends never/seldom	36%	78%
Used elements to help friends often/very often	9%	0%
Used elements to help self never/seldom	63%	78%
Used elements to help self often/very often	0%	0%
Used elements to help colleagues never/seldom	45%	64%
Used elements to help colleagues often/very often	0%	0%
Used elements to develop new approaches never/seldom	0%	36%
Used elements to develop new approaches often/very often	73%	14%
Never/seldom discussed positively with colleagues	9%	28%
Often/very often discussed positively with colleagues	36%	21%
Never/seldom discussed negatively with colleagues	90%	86%
Often/very often discussed negatively	0%	0%

8.3 Did participants treated later improve whilst waiting?

As detailed in the method section, the nine participants were grouped into three cohorts of five, four and four individuals for treatment, but as a result of withholding consent, absconding and exclusion, the final numbers were in fact five, three and one. Thus Cohort 3 represented, in reality, just one participant and was excluded from analysis of differences between cohorts. Paired t-tests indicated that there was no significant difference on scores for main outcome scales between baseline and pre-treatment for the whole group. So 'treatment as usual', alongside an anger treatment project did not appear to be having a systemic effect, given that participants started treatment at different time points.

In order to explore any differences between cohorts, given that the small numbers and lack of randomisation meant treating the cases as a group might not always be appropriate, the data for a selection of anger measures were graphed (see Figure 7,8 and 9).

Figure 7: Baseline, pre-treatment, post-treatment, 4m and 12m follow up NAS Total scores for Cohort 1 (n=5) & Cohort 2 (n=3).

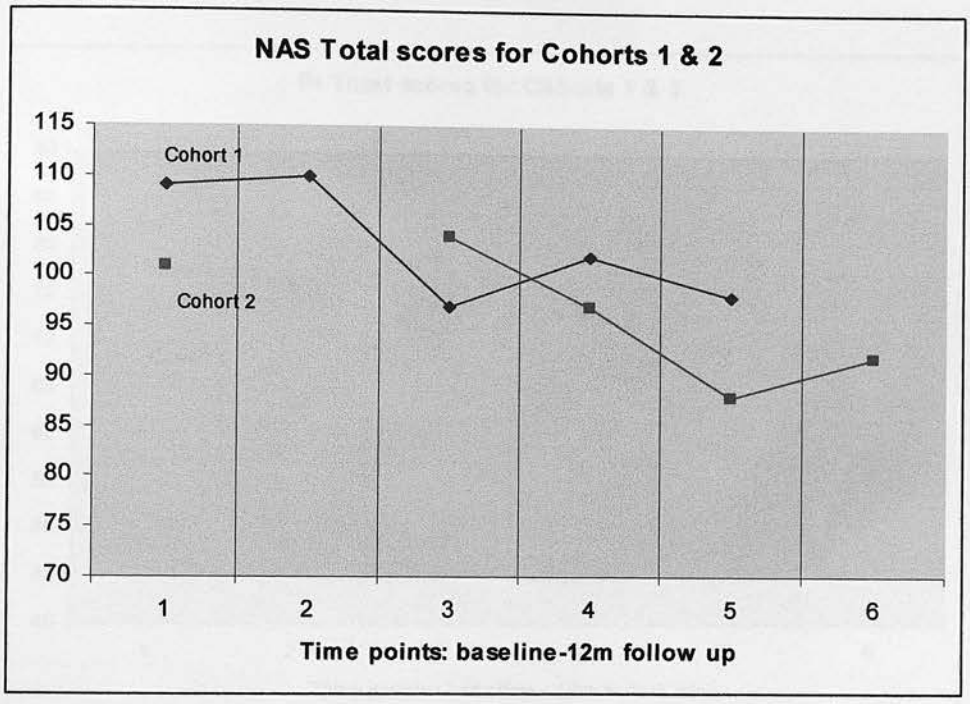


Figure 8: Baseline, pre-treatment, post-treatment, 4m and 12m follow up STAXI AxEx scores for Cohort 1 (n=5) & Cohort 2 (n=3).

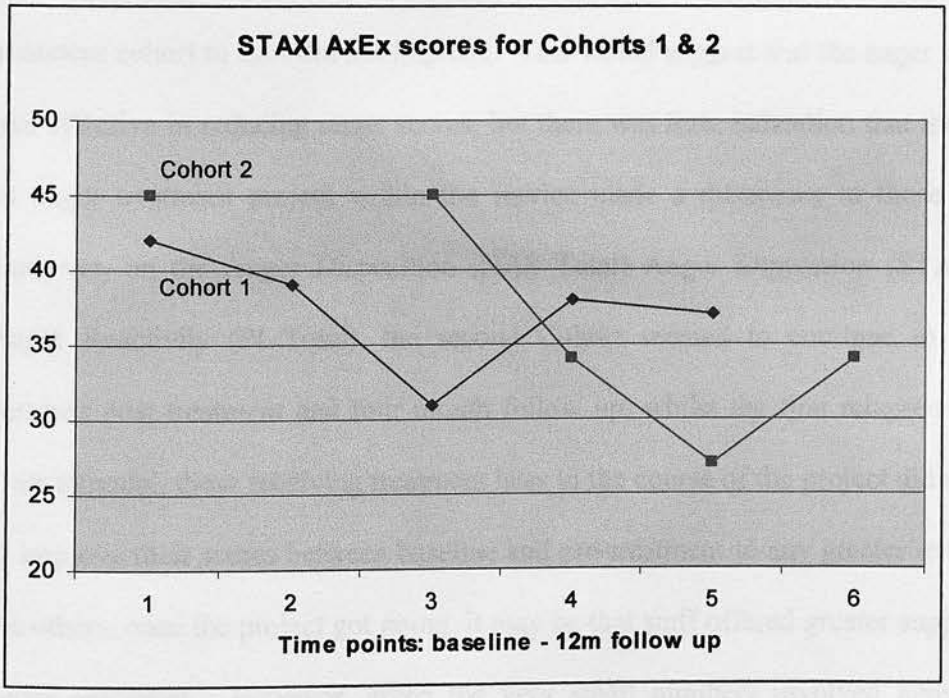
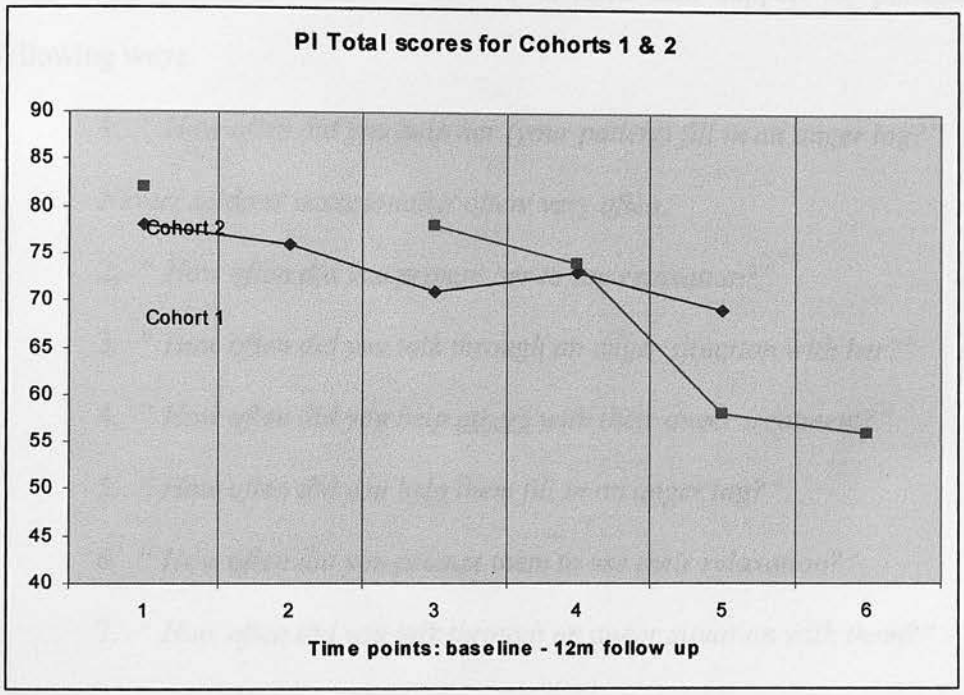


Figure 9: Baseline, pre-treatment, post-treatment, 4m and 12m follow up PI Total scores for Cohort 1 (n=5) & Cohort 2 (n=3).



This illustrated firstly, that those receiving treatment as usual whilst waiting for their treatment cohort to start did not improve. This would suggest that the anger treatment was effective in reducing anger scores, but there was little indication that the start of an anger treatment project within the service made a difference to those waiting. However, on the Anger Disposition (NAS Total) Anger Expression (STAXI) and Anger Reactivity (PI Total), the second Cohort seemed to continue to improve between post treatment and four month follow up, whilst the first relapsed slightly. Thus although those receiving treatment later in the course of the project did not seem to improve their scores between baseline and pre-treatment to any greater extent than the others, once the project got going, it may be that staff offered greater support with better outcomes. However, given the very small numbers involved here, this is

somewhat speculative and other individual differences between therapists or participants may equally explain these results.

Table 24 illustrates how often staff rated their support for patients in the following ways:

1. *" How often did you help her (your patient) fill in an anger log?"*

   Never/ seldom/ occasionally/ often/ very often.

2. *" How often did you prompt her to use relaxation?"*
3. *" How often did you talk through an anger situation with her?"*
4. *" How often did you help <u>others</u> with their anger treatment?"*
5. *" How often did you help them fill in an anger log?"*
6. *" How often did you prompt them to use their relaxation?"*
7. *" How often did you talk through an anger situation with them?"*

Table 24:
Frequency of support to patients over time (n = number of staff interviewed)

Question	Frequency	Cohort			
		1 (n=5)	2 (n=5)	3 (n=2)	Post project (n=14)
1	N/S*	40%	75%	50%	43%
	O/VO	40%	0%	0%	31%
2	N/S	20%	50%	0%	21%
	O/VO	80%	25%	0%	57%
3	N/S	0%	50%	0%	14%
	O/VO	80%	25%	0%	57%
4	N/S	20%	0%	0%	0%
	O/VO	20%	25%	0%	50%
5	N/S	40%	0%	0%	21%
	O/VO	0%	25%	0%	43%
6	N/S	20%	25%	0%	0%
	O/VO	60%	50%	0%	78%
7	N/S	20%	0%	0%	0%
	O/VO	60%	75%	100%	79%

N.B. Frequency rated as N/S = never/seldom; O/VO = often /very often.

Responses to the Staff Interview indicated that those Named Nurses working with the last patients to go through treatment (Cohort 3, staff n = 2) offered no more help than those involved at the beginning of the project (Cohort 1, staff n = 5). Those working with patients at the end of the whole project, who constituted mainly the

same staff (n=14) up to twenty-one months later, did seem to report higher levels of support offered, particularly when they were being asked how much they helped other patients. Presumably they offered their own patient more help during anger treatment, but not through follow up particularly. So observed differences between cohorts 1 & 2 in 4month follow up outcomes could perhaps be explained by this increase in support which seemed to have developed over time.

Thus, from the available staff data, combined with outcome data from Cohorts 1 & 2, it seems that an ongoing research project in this particular in-patient setting did not immediately increase the amount of support staff offered to patients in understanding and controlling their anger problems: on the contrary, staff reported decreased support in 5 areas. However the observed advantages Cohort 2 displayed over 4 month follow up could be explained by the considerable increases in staff support offered to patients other than their own named patient reported by the end of the project.

CHAPTER 9 – DISCUSSION

9.1 Was a separate study justified?

Chapter 2 details some of the attempts to clarify whether there are significant differences between anger as experienced and expressed by men and women, or in populations in secure settings, which justify treating them as a separate group. The scientific literature to date generally concludes that there are only a few differences in the experience, expression and sources of anger: women are more likely to feel anger and disappointment in response to and on behalf of those closest to them (Thomas, 1993); and some anger sub-scales indicate significant differences between men and women in a prison population (Suter, Byrne, Byrne, Howells & Hay, 2002). However, other feminist writers have emphasised differences between women in forensic settings and the need to consider carefully whether different approaches should be used (Carlen, 1987; Kendall, 2001 & 2003). Did this population of women with developmental disabilities in a forensic service merit additional research?

9.1.1. *Demographic differences between the men and the women*

The most noticeable difference between the samples was their size: there were 112 men and 27 women in the respective assessment studies, which had been conducted on the whole in-patient population within a forensic service with a whole population of 129 men and 28 women. Lindsay, Allen, Parry, McLeod, Cottrell, Overend & Smith (2004) report that the women they described made up 10% of the referrals, and this ratio is not dissimilar to our samples. This is the crux of the challenge in developing an evidence base for women offenders who make up such a small proportion of the whole population. This important fact suggests the need for

further replications with participants of the other gender: replications of the experimental studies of individualised treatment for men; replications with men of Thomas' (1993) qualitative studies; and replications of group intervention studies with a more intentional focus on gender. Ideally, multi-centre projects with a view to increasing sample sizes should be designed, but whether the current evidence for gender differences would justify the time and expense is debateable.

Like other studies, this study found that women had higher rates of conviction for violence, higher rates of mental illness (see Maden, Swinton & Gunn, 1994; Taylor, Hatton, Dixon & Douglas, 2004) and higher rates of sexual abuse (Lindsay *et al*, 2004) than men. One of the factors contributing to the difference in frequency of types of conviction, when described using a percentage of the whole population in a forensic in-patient service, is the high frequency of conviction of sex offences in men, but not women. The higher rates of mental illness cannot be properly explained and, unlike Lindsay *et al's* recent study (2004) which used a more reliable protocol for diagnosis, may not be reliable. They were diagnosed by different psychiatrists, perhaps using different methods, and it had been noted by research assistants that such diagnoses changed over time when histories were read in case files.

Feminist research suggests that women are 'medicalised' more than men (Kendall, 2003), and although a case has been made that people with learning disabilities are under-diagnosed (Taylor, Hatton, Dixon and Douglas, 2004), it is also the case that they are sometimes treated as 'ill' and admitted to hospital as a response to what would be simply be seen as psycho-social problems in the rest of the population e.g. housing or family problems. This can certainly occur when people with developmental disabilities display anti-social behaviour as they can be detained

under the Mental Health Act (England and Wales) under the category of mental impairment simply because of their disability at any time that dangerous behaviour is displayed, rather than mental illness *per se*. One could see people with developmental disabilities as a further construction of psycho-pathology, or as another social group who may be medicalised in the same way as feminists believe women to be. One might expect to see even higher proportions of women with developmental disabilities in hospital as a result of seemingly held beliefs that women who are violent must be ill and that people with a disability can be removed from society.

The data on the women's histories of sexual abuse in this study was recorded from records in case files whereas the men in Taylor's studies were also asked in interview. Despite this, the rates of sexual abuse were higher in the women, as in the other study describing this kind of population (Lindsay *et al*, 2004). Whilst men may be less likely to disclose abuse in an unsolicited way, studies confirm that there is a greater prevalence of sexual victimisation in women (Brown & Turk, 1992), which could be the underlying variable accounting for the higher rates of mental illness, as well as the higher levels of aggression displayed by women in coercive forensic settings. It seems therefore, that the differences in this particular forensic population justify a separate study to find out whether Taylor and Novaco's therapeutic programme would be effective despite these differences.

9.2 Assessment study

Although the original research proposal was not intended to represent a large assessment study *per se,* and was resourced within existing clinical staffing, the study ascertained the inter-correlational reliability and internal consistency of the

measures used with the women's population in this hospital using the screening sample. Additionally, it was possible to compare the assessment data for women and men in the same service, finding similar results to those found by Novaco & Taylor (2004) as well as to the only reported study which gives any consideration to gender differences with this population (Lindsay, Allen, Parry, McLeod, Cottrell, Overend & Smith, 2004).

9.2.1 *Psychometric properties*

The self report measures used in this study seem to have adequate psychometric properties which were comparable to those found for the male population, despite concerns expressed by Thomas (1993) that measures developed thus far mainly within populations of men may not be valid for women. The coefficients of internal consistency are similar to those reported by Novaco & Taylor (2004) for the NAS and PI Total scores and for the STAXI State and Trait Anger Scales. The coefficients reported for the sub-scales are similar to those reported by Novaco (2003) in the standardisation sample relating to the norms for the manual, but slightly lower than those reported by Novaco (1994) in a mixed gender study of psychiatric in-patients. Unlike Taylor's work, this study also reports the psychometric properties of the NAS Regulation sub-scale which, like that reported in Novaco's standardisation sample, only yielded moderate internal consistency. It should be borne in mind that the version used in this study was slightly adapted by Taylor for people with learning disabilities as described earlier. This sub-scale showed the greatest change as measured by standard deviations from pre-post treatment, but greater weight could not be placed on it as an outcome measure due to the weakness of its psychometric properties.

Inter-correlations also appeared to be comparable to those reported by Novaco & Taylor (2004). The patterns of inter-correlation were not dissimilar from the male sample previously reported apart from the finding of abnormal distribution on STAXI State Anger, with levels of State Anger showing a floor effect for a majority of participants at the time of assessment. Perhaps women feel less comfortable about admitting their current feelings of anger.

Benson and Ivins report the possibility that offenders and those with developmental disabilities may minimise and comply (Benson & Ivins, 1992), and there have in the past been hypotheses that women mask their anger (Thomas, 1993). Given that the assessments were completed in an environment with a focus on treatment of offending behaviours, it is reassuring that the assessment methods seem to have encouraged participants to report their angry feelings, and that the results appear to be reliable, both in statistical terms, and clinically, with participants meeting criteria for treatment, and having been prioritised by nursing staff. This priority was often determined by the fact that anger and aggression were apparent.

A major weakness of this part of the study was that it was not possible to incorporate inter-correlations between self-report measures and the staff rated WARS, file data on assaults, or the newly devised Imaginal Provocation Test as unfortunately none of these data were collected at the screening stage. It was possible to collect some of the assault data *post hoc,* but unethical to include it for discharged patients without revisiting the need to seek consent. It is a major weakness of this study that the validity of the self-report measures is less clear than it might be given that self reported anger and staff reported anger and aggression could

not be correlated with objective staff records of assaultive behaviour due to the inadequate numbers of participants for whom assault data was collected.

9.2.2 *Differences between the men and the women in terms of anger*

The scores on self reported anger on the Spielberg State-Trait Anger Expression Inventory and on the Novaco Provocation Inventory for the women's sample were nearly all very slightly higher than those for the men, a similar finding to that found by Suter, Byrne, Byrne, Howells and Day (2002) in compared samples of women and men prisoners. Unlike Suter's study, which found differences in almost every scale, differences in our study were only significant for two Trait anger sub-scales of the STAXI. Although this is contradictory to the findings of Suter, Byrne, Byrne, Howells and Day (2002), recent standardisation data for the Novaco Anger Scale and Provocation Inventories (Novaco, 2003) confirms that comparison of anger scores in women and men in a large non-forensic community sample yields few differences either, as was found in the Spielberger STAXI standardisation sample. Despite a statistically significant difference, as described in the manual (Novaco, 2003), between the mean of the NAS Behaviour sub-scale in the male standardisation sample (n = 652) as compared to the mean for women (n = 893), presumably due to the high numbers in the sample, the effect size was minimal. This finding replicates those of Kassinove, Sukhodolsky, Tsytsarev & Solovyova (1997) who found national or cultural differences but not gender differences, and of Novaco and Jarvis' review (2002). The sample size here was not large enough to statistically explore the detailed differences in anger found by Thomas (1993) such as the importance of relational, or interpersonal issues in provoking anger in women, and the fact that older women were more likely to express anger inwardly (although

anthropological studies indicate that women may become more assertive as they grow older) (Sokolovsy & Sokolovsky, 1982). In supervision, however, therapists described the importance of relationships in provoking anger in the participants, confirming the often vicarious nature of women's stress. Many of the women's main concerns related to families at some distance from the hospital, with ageing mothers, misbehaving teenagers and siblings, and parents with problems almost equal to their own. To be unable to get clear information about what was going on in their families, or to be able to help was very difficult for them. In the more immediate environment, other patients were the commonest source of provocation, usually perceived as intentionally winding them up in order to cause the participant to have privileges withdrawn. The other main source of provocation seemed to be disrespectful communication from staff, with the Disrespect sub-scale on the P.I. representing an almost statistically significantly higher score than the men ($p = 0.05$).

9.3. Treatment Outcome Study - Methodology and control factors.

9.3.1 Quantitative versus qualitative research

This study was designed to replicate the assessment and intervention methods used with the male population in the same service (Novaco & Taylor, 2004), in order to ascertain whether these were effective with the women. Clearly the sample size precluded a comparable design, and a case series, with multiple baseline was used, rather than the randomised waiting list control group design used with the men. Feminist researchers emphasise the need to listen very carefully to women's experience, working collaboratively *with* them, rather than doing research *to* them, and indeed, much current thinking in disability research might reflect a similar view.

This study could therefore be open to criticism in this respect, but three aspects of the methodology justify the design used, in the researcher's opinion.

Firstly, without attempted replications, the effectiveness of treatments for women or men cannot be determined, and attempts such as this therefore seem justifiable. In order to compliment such quantitative studies, the qualitative studies which have described women's anger (Thomas, 1993), should also be replicated with samples of men. Each method has a part to play in our understanding. Secondly, the consent procedure was very carefully operated, giving the women a careful explanation of the purpose and procedures of the project, and a 'cool down' period during which they could discuss it further with staff who were not directly involved. Thirdly, although they were never involved in the design of the project, or in choosing the intervention, cognitive therapy involves a collaborative approach in which the participants contributed aspects of their own agenda, rather than simply being 'taught' from a pre-determined psycho-educational programme, as might happen in an anger management group. The women were asked several questions about how they experienced each session and given opportunities to give open feedback about the intervention. The reports written about their responses to and the outcomes of the programme were shared with them, and Chapter 7 above described the experiences and outcomes for three of the women involved in some detail, albeit from the researcher's and therapist's perspective. Thus taking these three points into account, it would seem that this study avoided the worst aspects of doing research *to* people, rather than *with* people, and that quantitative studies are also necessary.

9.3.2 Size of sample and power

Given that the researcher finds a quantitative methodology justifiable, consideration will now be given to its strengths and weaknesses. The literature in this field has been criticised for the predominance of case studies and case series (Taylor, Novaco, Gillmer and Thorne, 2002). In clinical settings, it is understandably difficult to find samples which are large enough to meet strict inclusion criteria and to enable adequate power for robust statistical analysis. Recent research developments emphasise the importance of using measures of clinical change including effect size (Cohen, 1992) and indices of reliable change (Jacobson & Truax, 1991) taking measurement error into account. At the time this study started, neither standardisation data for the Novaco scales, nor "cut off scores" were yet available and changes in sub-total and total scores for self report anger scales were the main method of ascertaining individual outcomes. However, Novaco has subsequently devised a standardised scoring system which enables the clinician to more easily interpret whether change in scores is clinically significant.

It is extremely unlikely that researchers in the UK will be able to find an in-patient population of women offenders with developmental disabilities larger than that which had been described here, based as it was in the largest specialist hospital of its kind. Lindsay, Smith, Quinn, Anderson, Smith, Allan, & Law (2004) have described a similarly sized community sample for their evaluation of a mixed gender group intervention, and will no doubt continue to extend this work. Community studies are, however, less easily controlled than those with in-patients.

9.3.3 Control factors

Although the study described in this thesis was based on a case series, this was not naturalistically gathered, but proactively planned. Thus baseline data was collected at the same point in time, and variable baseline periods built into the time line, controlling the risks of extraneous events being the possible cause of clinical change. However, the participants were not randomly allocated to cohort (or related start dates), but treated earlier if nursing staff felt they were a priority. This was a weakness of the study, but the multiple baseline design reduced the risk of Type 1 error. A number of other controls were built into the procedures to increase power: assessment by relatively independent psychology assistants rather than therapists; use of a detailed manual to guide session content and methods and provide consistent handout materials; monitoring of other significant changes which may have impacted on women's anger; and weekly group supervision for therapists provided by the lead researcher to ensure treatment integrity.

The main lack of control in terms of treatment integrity may have been the number of therapists involved and their various levels of experience: seven therapists were involved, with only the lead researcher working with one participant in each cohort, and the other participants being seen by a different therapist each, who ranged from highly experienced to novice with the client group. However, when the cases were considered in terms of best and worst outcome for identifying suitable case studies, therapist experience appeared to have had little effect. Interestingly, the most experienced therapists were least likely to stick to the frequency of treatment sessions resulting in treatment being delivered over a longer period of weeks, and less successful outcome, although there may have been some

element of planning in allocating more challenging participants to more experienced therapists. Changes in personnel in the psychology assistants also ran the risk of poorer control over data collection and collation given that this was an unfunded clinical evaluation. However, this was addressed via overlap between contract start and end dates to ensure adequate handover of procedures.

9.3.4. Data Analysis

A wide range of measures were used to ensure clarity about outcome in the hope that one result (e.g. self reported anger) would be supported by another (e.g. staff reported anger). But the large number of sub-scales with such a small sample were difficult to analyse in terms of their relationship with one another. Use of clinical methods of evaluating change are likely to be more meaningful than statistical analysis in such a case series, and further exploration of differences between those cases which were seen to have reliably improved, and those who were not would be useful in further small sample research.

9.4 Treatment Outcomes

Most participants improved between any assessment points on all self rated and staff rated measures, but using Jacobson and Truax's (1991) method indicated that some of this apparent improvement may have been due to measurement error, with only up to four out of the nine improving "reliably" at any point in time. When the graphs of those who reliably improved were examined they indicated that different participants changed reliably at each stage. Thus it might be the case that each benefited at some point, but that the improvement was not maintained. The

importance of detailed clinical investigation of small samples such as this becomes clear.

It is worth considering the issue of maintenance here. Although a multiple baseline was utilised to control for extraneous factors which may impact on anger, several of the participants experienced important life events round about the twelve month follow up point. One patient's mother had just died; one had been trying to arrange a visit from her daughter which fell through; one had a longstanding partner who was then to be discharged from hospital; and another finally gave up her efforts to make contact with her son during this 4 -12 month period. Maintenance of effect sizes were inconsistent: there was variability for NAS sub-scales, with effect sizes maintained for NAS Total across the follow up period, but with poorer maintenance for the STAXI Anger Expression scale; the P.I. indicated improving effect sizes across the 12 month follow up period on every sub-scale and on the Total, but the IPT seemed to indicate deterioration. Staff Interview results indicated that support for patients had dropped off by the time the third cohort were being offered treatment. So, despite efforts to involve staff and encourage consistent participant support, varying levels of staff support, and adverse life events, seem to have contributed to what looks like variable maintenance of treatment effects.

9.4.1 Comparison of treatment outcomes with the men

Like the men in the same service, these women who have a developmental disability, an offending history and long-standing problems with relationships, mood, anger and aggression, were engaged in cognitive behavioural therapy including an individual analysis and formulation of their anger problems. However, there were proportionally more potential women participants who refused consent or dropped

out of treatment. Whether this reflected their greater levels of mental health problems, or the fact that some of the women had done some work on anger in the context of a different area of group therapy (e.g. a cognitive behavioural group for fire-setters) is unclear. The longer average length of stay may mean some of the women had engaged in some individual therapy previously and felt they did not need more. Others who withheld consent were anxious about disclosing abuse issues in the context of anger treatment, although such issues had also been raised anxiously by participants in the men's anger project. Given that they had refused or withdrawn consent to take part it would have been unethical to investigate such issues more formally. Interestingly, several of those who agreed to take part had already completed group therapy for survivors of sexual abuse and still had significant anger problems.

Despite the many disadvantages they experience, these women, like their male counterparts, not only took part but several seemed to benefit significantly from intensive individual cognitive-behavioural anger treatment. Although the analysis was necessarily carried out differently, it is of note that statistical results found on various self-report scales were consistent with those found in Taylor's study of men (Taylor, 2002). However, Taylor and colleagues found the Provocation Inventory Total score to be statistically significantly reduced at post-treatment whereas this did not seem to be the case for the women. Both studies found that Staxi Anger Expression reduced significantly from pre- to post-treatment, but the women's study found a significant increase in Anger Control which was less evident in the men's study. Taylor's analysis did not utilise calculations of how many participants had reliably changed and thus these data are impossible to compare at present. It may

be possible to collaborate in considering this issue in the future. It is possible that such analysis may reveal similar measurement error effects with less positive results, or that this treatment approach was less effective for women, prompting further detailed and perhaps qualitative investigations into the possible differences in outcome. The improvements which were observed in levels of anger disposition, reactivity and control were reflected in the positive comments and self evaluation reported by participants in both studies. There were few obvious differences between men and women in their own perceptions of the intervention and its benefits, though further micro-analysis of these data could be of interest. One obvious example was that Anger Logs did not give an option of "cried" in the "How did you react?" section yet many women needed to record such a response.

9.5 Staff Support – the Systemic Effect?

Taylor, Novaco, Gillmer, Robertson and Thorne (2005) had hypothesised that staff support during the period their control group were waiting may have accounted for improvements made during that period. The findings from this study with women, which attempted to explore this hypothesis were not straightforward, but results show that staff report offering greater levels of support to patients other than their own for elements of anger treatment later in the follow up period than they offered immediately after treatment was complete. Exploration of these data did not demonstrate any link between extent of reductions in anger and the length of time the project had been running. It is possible that the systemic or "diffusion" effect proposed by Taylor and his colleagues was in fact taking place and that by the twelve month follow up points more staff had been involved in supporting more clients

through treatment, and were thus more likely to use some of the strategies they had picked up via supporting participants in sessions or through therapist feedback. It is equally possible that staff perceived some deterioration, possibly related to the life events mentioned previously, and started to implement greater levels of support to try and remediate this position. Rose and colleagues (Rose, West & Clifford, 2000) have demonstrated that staff are a key part of anger treatment in the group work they evaluated and this area of research would benefit from further exploration.

9.6 Case Studies – the Patient Experience

The detailed case studies clearly illustrate the complexities of these women's history and current experiences. It would have been interesting to have explored the reasons for withholding consent or dropping out. It may be that the women were less inclined to admit their anger than the men, or perhaps less inclined to admit that their detention in hospital was justified and thus they may have been less cooperative. For the majority who took part, their willingness to engage with therapy and their reported appreciation of time to talk with a therapist might suggest that an individual approach be recommended for anger treatment.

Although many studies, including group interventions, may have reported patient satisfaction, or high levels of engagement, these participants seemed to be reporting particular pleasure in the one to one time to talk about themselves. However, there is not yet an adequate evidence base to recommend individual over the more common group based anger management intervention. Perhaps because anger does not merit an internationally recognised psychiatric diagnosis the required

intervention has been perceived as more akin to psycho-education or skills development, rather than therapeutic treatment. Whilst requiring an ambitious researcher, studies comparing outcomes of group versus individual therapy would be of great interest in terms of their relative benefits. Delivering groups are usually at least as time consuming as individual work, and often impractical in rural areas, so decisions about their relative merits must be based on their impact on anger disposition and control, as well as practical considerations, rather than myths about efficiency or therapists' personal preferences.

CHAPTER 10 - CONCLUSIONS

Assessment of twenty eight women on a range of measures indicated that the self report measures of anger had validity and utility with this group of women. The assessment study illustrated remarkably few differences between the women and their male counterparts. This finding is supported by previous studies.

This attempt to replicate a well controlled outcome study of cognitive behavioural anger treatment for male offenders with developmental disabilities with a much smaller number of women in the same service was reasonably successful, despite some non-consenters and participants who withdrew. The majority of women initially appeared to benefit from the treatment as reported by themselves, by staff, and in terms of development of relevant competences as rated by staff and therapists. Adjusting the design and analysis to accommodate a smaller sample size, allowed the researcher to recognise that only up to about a third reliably improved on various measures at any point in time. Although the study did not incorporate component analysis, there were no obvious indications that the treatment needed to be adapted to any greater extent than one would do to meet any individual's needs, but further qualitative analysis of difference between those who reliably improved and those who did not might yield useful information in this respect.

Attempts to address the question of whether staff support for the treatment had a specific effect, as hypothesised by Taylor, Novaco, Gillmer, Robertson and Thorne (2005), were not straightforward, but results show that staff report offering greater levels of support for elements of anger treatment later in the follow up period than they did immediately after treatment was complete. Results did not demonstrate

any link between reductions in levels of anger and such increased support. Indeed, by the twelve month follow up stage, several participants were doing less well than they had been at four month follow up.

Further qualitative research into causes of gender differences in levels of violence and aggression would be useful, as studies to date are inconclusive. Further exploratory outcome studies with other small in-patient or community samples of women, with or without developmental disabilities, about whom there are no other studies, would be valuable and would benefit from more detailed analysis of difference between those who did and did not improve.

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APPENDICES

Novaco Anger Scale (NAS)
(Northgate Modification)

The statements below describe things that people think, feel, and do. To what extent are they true for you? For each item indicate whether it is (1) never true, (2) sometimes true, or (3) always true. Use the scale on the right side by putting a circle around the number (1, 2, or 3) that fits your response to the statement.

		Never True	Sometimes True	Always True
1.	When I've been wronged, I will get angry. **- e.g. if someone tells a lie about me, I'll get angry.**	1	2	3
2.	Once something makes me angry, I keep thinking about it. **- e.g. if someone has wound you up, does it stay in your head and you keep going over it.**	1	2	3
3.	Every week I meet someone I don't like.	1	2	3
4.	I know that people are talking about me behind my back.	1	2	3
5.	When something makes me angry I can forget about it and get on with something else.	1	2	3
6.	Some people would say I'm hotheaded. **- e.g. you lose your temper all of a sudden.**	1	2	3
7.	When I get angry, I stay angry for hours (a long time).	1	2	3
8.	My body feels tight, wound up. (i.e. tense)	1	2	3
9.	I walk around in a bad mood.	1	2	3
10.	If I feel myself getting angry, I can calm myself down.	1	2	3
11.	My temper is quick and hot (i.e. fast and strong)	1	2	3
12.	When someone shouts at me, I'll shout back at them.	1	2	3
13.	I have had to be rough with people who bothered me	1	2	3
14.	I feel like smashing things	1	2	3
15.	If I have a problem and feel fed up with it, I try and find an answer.	1	2	3
16.	When I get angry, there's usually a good reason for it.	1	2	3
17.	When something is done wrong to me I find it hard to sleep. **- e.g. if you've had your trust broken by someone, you find it hard to sleep.**	1	2	3
18.	When I don't like someone, I don't care if I hurt their feelings.	1	2	3

		Never True	Sometimes True	Always True
19.	People can be trusted to do what they say. **- e.g. if someone says they're going to do something do you believe them.**	1	2	3
20.	I try and look for the good in other people.	1	2	3
21.	When I get angry, I get really angry	1	2	3
22.	When I think about something that makes me angry, I get even more angry.	1	2	3
23.	I feel agitated and unable to relax (i.e. fidgety, find it hard to sit still).	1	2	3
24.	I get annoyed when someone interrupts me. **- e.g. if you're talking to someone and someone else butts in.**	1	2	3
25.	I can stay calm when put under pressure. **- e.g. if someone is rushing you to get a job done, can you stay calm**.	1	2	3
26.	If someone annoys me, I react and then think about it later. **- e.g. if someone is winding you up, you shout at them and then later think what you should have done.**	1	2	3
27.	If I don't like someone, I'll tell them so.	1	2	3
28.	When I get mad, I can easily hit someone.	1	2	3
29.	When I get angry, I throw or slam things.	1	2	3
30.	When you're having a problem with someone do you speak to the person about it. **- e.g. if someone has told a lie about you, do you try and talk it through with that person.**	1	2	3
31.	If I lose my temper with someone, it's because they deserved it.	1	2	3
32.	When someone makes me angry, I think about getting even. **i.e. do you think about getting someone back**.	1	2	3
33.	If someone cheats me, I'd make them feel sorry. **- e.g. if someone tells everyone a secret about you, would you make them feel sorry for it.**	1	2	3
34.	People pretend their telling the truth, when they're really telling lies.	1	2	3
35.	If someone says something nasty to me I can let it go.	1	2	3
36.	When I get angry, I feel like smashing things.	1	2	3
37.	Some people get angry and get over it, but for me it takes a long time.	1	2	3

| | | Never | Sometimes | Always |

		True	True	True
38.	I have trouble sleeping or falling asleep.	1	2	3
39.	A lot of little things bug me.	1	2	3
40.	When I get wound up, I can calm myself down by taking deep breaths.	1	2	3
41.	I have a hot temper that happens really quickly.	1	2	3
42.	Some people need to be told to "get lost".	1	2	3
43.	If someone hits me first, I hit them back.	1	2	3
44.	When I get angry with someone, I take it out on whoever is around. **- e.g. if someone has made you angry, I'll be nasty to other people.**	1	2	3
45.	If I don't agree with someone, I try to say something useful. **- e.g. if someone says something is good and you think it's bad, you try and explain what you think and why you think that.**	1	2	3
46.	I'll get more angry, the more someone annoys me.	1	2	3
47.	I feel like I am getting a raw deal out of life. **- i.e. do you feel what you're getting out of life isn't fair.**	1	2	3
48.	When I don't like somebody, there's no point in being nice to them.	1	2	3
49.	When someone does something nice for me, I wonder about the hidden reason. **- e.g. if someone says something nice to me I wonder why.**	1	2	3
50.	If someone is annoying me, I try to work out why. **- e.g. if someone is winding you up, do you stop and think they might have a reason, like they're having a bad day.**	1	2	3
51.	It makes me really angry is someone makes fun of me.	1	2	3
52.	When I get really angry with someone, I stop talking to them.	1	2	3
53.	I get a headache when someone annoys me.	1	2	3
54.	It bothers me when someone does things the wrong way. **- e.g. if someone lays the table wrong does it annoy you.**	1	2	3
55.	When I'm wound up it goes away by thinking about something calm and relaxing.	1	2	3
56.	When I get angry, I lose my temper really quickly.	1	2	3
57.	When I argue with someone, I keep going until they stop.	1	2	3
58.	Some people need to get knocked around	1	2	3
59.	If someone makes me angry, I'll tell other people about them.	1	2	3
60.	I can walk away from an argument.	1	2	3

Provocation Inventory (PI)
(Northgate Modification)

The following items describe situations that can make someone angry. The scale on the right side is for the degree or amount of anger. For each of these situations below, please indicate the amount of anger that you would feel it actually happened to you. Put a circle around the number in the scale on the right side.

		Not at all angry	A little angry	Fairly angry	Very Angry
1	Being criticised in front of other people for something that you have done. **eg, someone says you've done something wrong in front of all the other patients.**	1	2	3	4
2	Seeing someone bully another person who is smaller or less powerful. **eg, somebody small is being picked on by somebody big.**	1	2	3	4
3	You are trying to concentrate, but someone keeps making a noise. **eg, you are trying to do your job at work and someone else keeps making a lot of noise**	1	2	3	4
4	People who act like they know it all, eg, show offs	1	2	3	4
5	Being slowed down by another person's mistakes. **eg, you are working in the garden and you can't finish your job because somebody keeps doing theirs wrong**	1	2	3	4
6	You are in a queue to get something, and someone pushes in front of you.	1	2	3	4
7	Not being given recognition for doing good work. **eg, you get all your work right at education but no-one says well done**	1	2	3	4
8	You are watching a TV programme, when someone comes along and switches the channel.	1	2	3	4
9	People who don't really listen when you talk to them.	1	2	3	4
10	Getting cold soup or cold vegetables for dinner.	1	2	3	4
11	Having someone look over your shoulder while you are working. **eg. You are at work and someone is watching what you are doing all the time**	1	2	3	4
12	Being overcharged by someone for a repair. **eg, somebody charges you £60 to fix your TV when it should cost £10.**	1	2	3	4
13	You need to get somewhere in a hurry, but you get stuck in traffic.	1	2	3	4

		Not at all angry	A little angry	Fairly angry	Very Angry
14	People who think that they are better than you.	1	2	3	4
15	You are carrying a cup of coffee, and someone bumps into you.	1	2	3	4
16	Someone making fun of the clothes you are wearing.	1	2	3	4
17	Being singled out for correction, when someone else doing the same thing is ignored. **Eg, everyone in your flat does something silly, but you are the only person who gets told off.**	1	2	3	4
18	You make arrangements to do something with a person who backs out at the last minute. **eg, You are meant to be going out with a friend, but at the last minute they tell you that they can't go.**	1	2	3	4
19	People who think that they are always right. **eg, someone who thinks they are never wrong.**	1	2	3	4
20	Just after waking-up in the morning, someone starts giving you a hard time. **eg, you've just got up and somebody starts on at you**	1	2	3	4
21	Someone looks through your things without asking you.	1	2	3	4
22	Being accused of something that you didn't do. **eg, being told that you did something that you didn't do**	1	2	3	4
23	You lend something to someone, and they fail to return it. **Eg, someone borrows a tape from you and they don't give it back.**	1	2	3	4
24	Someone who is always contradicting you. **Eg, someone who always disagrees with you**	1	2	3	4
25	It's mealtime and you are hungry, and someone plays a practical joke on you.	1	2	3	4

Spielberger State-Trait Anger Scale (STAXI)
(Northgate Modification)

Name: _____ **Dob:** _____ **Age:**_____

Raters Name: **Date Administered:** _____

Part 1 How I Feel Right Now

Directions

I am going to read to you some things that people sometimes say about themselves. After each one I want you to tell me how you feel **right now**. Remember, there are no right or wrong answers. I want you to give me the answer which you think best shows how you are feeling **right now**.

		Not at all	A little bit	Quite a bit	Very much so
1.	Right now - I am furious (really angry; or in a rage).	1	2	3	4
2.	Right now - I feel irritated (bad tempered; annoyed; or cross).	1	2	3	4
3.	Right now - I feel angry.	1	2	3	4
4.	Right now - I feel like shouting at somebody.	1	2	3	4
5.	Right now - I feel like breaking things (smashing stuff up).	1	2	3	4
6.	Right now - I am mad (very angry; steaming; up a height).	1	2	3	4
7.	Right now - I feel like banging on the table (stamping my feet; slamming the door).	1	2	3	4
8.	Right now - I feel like hitting someone.	1	2	3	4
9.	Right now - I am wound up.	1	2	3	4
10.	Right now - I feel like swearing (effing and blinding).	1	2	3	4

S-Ang (items 1 - 10) =

Part 2 How I Generally Feel

Directions

I am going to read to you some things that people sometimes say about themselves. After each one I want you to tell me how you generally feel - how you feel **most of the time**. Remember, there are no right or wrong answers. Just give me the answer which you think best shows how you feel **most of the time**.

		Almost never	Sometimes	A lot of the time	Almost all of the time
11.	I am quick tempered (short-tempered, have a short-fuse; touchy).	1	2	3	4
12.	I have a fiery temper (lose it altogether; go ballistic).	1	2	3	4
13.	I am a hotheaded person (impulsive; I don't think before I do things).	1	2	3	4
14.	I get angry when I'm slowed down by someone elses mistakes. Eg, you can't finish your job because somebody keeps doing theirs wrong.	1	2	3	4
15.	I feel annoyed if I don't get rewarded for working hard. Eg, you get all your work right but no-one says 'well done'.	1	2	3	4
16.	I fly off the handle (lose my temper quickly).	1	2	3	4
17.	When I get mad (up a height), I say nasty (bad) things.	1	2	3	4
18.	It makes me furious (really angry; in a rage) when I'm criticised (told off) in front of others.	1	2	3	4
19.	When I get frustrated (annoyed; irritated) I feel like hitting someone.	1	2	3	4
20.	I feel furious (really angry; in a rage) if I do a good job but get a poor grade or report for it.	1	2	3	4

T - Ang (items 11 - 20) =

T - Ang/T (items 11, 12, 13,16) =

T - Ang/R (items 14, 15, 18, 20) =

Part 3 When Angry or Furious

Directions

Everyone feels angry or furious from time to time, but people are different in the ways that they handle these feelings. I am going to read to you some ways people say they react or behave when they feel angry or furious. After each one I want you to tell me how often you usually react or behave like this when you are feeling angry or furious. Remember, there are no right or wrong answers. Just give me the answer which you think best shows how you behave.

		Almost never	Sometimes	A lot of the time	Almost all of the time
21.	When I'm angry - I can control my temper	1	2	3	4
22.	When I'm angry - I show my anger	1	2	3	4
23.	When I'm angry - I keep things in (keep things to myself)	1	2	3	4
24.	When I'm angry - I'm patient (don't get annoyed) with others.	1	2	3	4
25.	When I'm angry - I sulk (get in a bad mood)	1	2	3	4
26.	When I'm angry - I keep myself to myself and stay away from other people.	1	2	3	4
27.	When I'm angry - I say sarcastic (insulting) things to other people to try to put them down.	1	2	3	4
28.	When I'm angry - I keep my cool (keep calm; stay in control).	1	2	3	4
29.	When I'm angry - I do things like slam doors.	1	2	3	4
30.	When I'm angry - I get really wound-up inside, but I don't show it.	1	2	3	4
31.	When I'm angry - I control my behaviour.	1	2	3	4
32.	When I'm angry - I argue with others	1	2	3	4
33.	When I'm angry - I hold grudges (have bad thoughts about people) that I don't tell anyone about.	1	2	3	4

		Almost never	Sometimes	A lot of the time	Almost all of the time
34.	When I'm angry - I hit out at whatever is making me furious.	1	2	3	4
35.	When I'm angry - I can stop myself from losing my temper.	1	2	3	4
36.	When I'm angry - I think nasty or bad things about people but I don't say anything.	1	2	3	4
37.	When I'm angry - I am angrier/more furious than I let on.	1	2	3	4
38.	When I'm angry - I calm down (cool down) faster than most people.	1	2	3	4
39.	When I'm angry - I say nasty or bad things.	1	2	3	4
40.	When I'm angry - I try to be tolerant (patient and calm) and not get annoyed with others.	1	2	3	4
41.	When I'm angry - I'm more wound up than other people realise.	1	2	3	4
42.	When I'm angry - I lose my temper.	1	2	3	4
43.	When I'm angry - if someone annoys me, I'm likely to tell them how I feel.	1	2	3	4
44.	When I'm angry - I control (handle) my angry feelings.	1	2	3	4

Ax/In (Items 23, 25, 26, 30, 33, 36, 37, 41) =

Ax/Out (Items 22, 27, 29, 32, 34, 39, 42, 43) =

Ax/Con (Items 21, 24, 28, 31, 35, 38, 40, 44) =

Ax/Ex (Ax/In + Ax/Out - Ax/Con + 16) =

Imaginal Provocation Test

IMAGINAL PROVOCATION TEST (IPT)

Anger Research Project

Patient's Name: ..... D.o.b. .....

Villa/Unit: .....

Date of Administration: ..... Administrator's Name .....

- Pre-Treatment/Post Treatment Administration (*delete one*)
- Order of Presentation of IPT Forms for this Administration

1. Form A B C D
2. Form A B C D

Introduction of IPT to the Patient

I am going to ask you to imagine yourself, that is put yourself, in the two situations that I will begin to read out aloud to you in a moment.

I would like you to try as hard as you can to see yourself in these situations and imagine how they would make you feel.

Once I have read out the situations I will ask you some questions about how you feel.

Do you have any questions before we begin?

- Record briefly below any queries that the patient has.

IMAGINAL PROVOCATION TEST (IPT) – Form A

You are sitting in the villa/unit day room watching your favourite TV programme. You are really enjoying it. Another patient comes into the day room, and without asking, walks up to the TV, switches to another channel and then sits down to watch a different programme.

1. How angry does this make you feel?

Not at all	A little	Fairly	Very
1	2	4	4

If this happened to you:

2. You would swear or shout.

Not at all	A little	Quite a bit	A lot
1	2	3	4

3. You would want to hit the person.

Not at all	A little	Quite a bit	A lot
1	2	3	4

4. You would stay calm and cool.

Not at all	A little	Quite a bit	A lot
1	2	3	4

5. You would want to smash or kick something.

Not at all	A little	Quite a bit	A lot
1	2	3	4

6. You would w ant to tell the person off and start an argument.

Not at all	A little	Quite a bit	A lot
1	2	3	4

7. You would try to understand why the person did this and not get angry about it.

Not at all	A little	Quite a bit	A lot
1	2	3	4

8. How easy was it for you to imagine (see yourself) in this situation?

Very difficult	Difficult	Easy	Very easy
1	2	3	4

9. How easy was it for you to keep a clear picture of this situation in your head?

Very difficult	Difficult	Easy	Very easy
1	2	3	4

10. Remind me of what happened in this situation.
(Underline each element that the patient is able to recall without prompting).

I am sitting in the villa (unit) day room / watching my favourite TV programme. /

I am really enjoying it. / Another patient comes into the day room / and without asking /

switches the TV to another channel. / Then he sits down to watch a different programme.

Score =

IMAGINAL PROVOCATION TEST (IPT) - Form B

There has been some trouble on the villa (unit) and staff are not sure who is to blame. You didn't have anything to do with it – but when the staff ask you if you know anything about the trouble, they say they think that you might be responsible (to blame).

1. How angry does this make you feel?

Not at all	A little	Fairly	Very
1	2	3	4

If this happened to you:

2. You would swear or shout.

Not at all	A little	Quite a bit	A lot
1	2	3	4

3. You would want to hit the person.

Not at all	A little	Quite a bit	A lot
1	2	3	4

4. You would stay calm and cool.

Not at all	A little	Quite a bit	A lot
1	2	3	4

5. You would want to smash or kick something.

Not at all	A little	Quite a bit	A lot
1	2	3	4

6. You would want to tell the person off and start an argument.

Not at all	A little	Quite a bit	A lot
1	2	3	4

7. You would try to understand why the person did this and not get angry about it.

Not at all	A little	Quite a bit	A lot
1	2	3	4

8. How easy was it for you to imagine (see yourself) in this situation?

Very difficult	Difficult	Easy	Very easy
1	2	3	4

9. How easy was it for you to keep a clear picture of this situation in your head?

Very difficult	Difficult	Easy	Very easy
1	2	3	4

10. Remind me of what happened in this situation.
(Underline each element that the patient is able to recall without prompting).

There has been some trouble on the villa (unit)/and the staff are not sure who is to blame./ I didn't have anything to do with it / - but when the staff ask me / if I know anything about the trouble / they say they think / that I might be responsible (to blame).

Score =

IMAGINAL PROVOCATION TEST (IPT) – Form C

You come back to the villa (unit) after finishing work at tea-time. You go into your bedroom to get changed. After a short time you see that someone has been going through your things without asking you.

1. How angry does this make you feel:

Not at all	A little	Fairly	Very
1	2	3	4

If this happened to you:

2. You would swear or shout.

Not at all	A little	Quite a bit	A lot
1	2	3	4

3. You would want to hit the person.

Not at all	A little	Quite a bit	A lot
1	2	3	4

4. You would stay calm and cool.

Not at all	A little	Quite a bit	A lot
1	2	3	4

5. You would want to smash or kick something.

Not at all	A little	Quite a bit	A lot
1	2	3	4

6. You would want to tell the person off and start an argument.

Not at all	A little	Quite a bit	A lot
1	2	3	4

7. You would try to understand why the person did this and not get angry about it.

Not at all	A little	Quite a bit	A lot
1	2	3	4

8. How easy was it for you to imagine (see yourself) in this situation?

Very difficult	Difficult	Easy	Very easy
1	2	3	4

9. How easy was it for you to keep a clear picture of this situation in your head?

Very difficult	Difficult	Easy	Very easy
1	2	3	4

10. Remind me of what happened in this situation.
(Underline each element that the patient is able to recall without prompting).

I come back to the villa (unit) after finishing work / at tea-time / I go into my bedroom / to get changed. / After a short time / I realise (see) that someone has been going through my things / without asking me.

Score =

IMAGINAL PROVOCATION TEST (IPT) - Form D

There has been some trouble at work. You were involved with some other patients. After talking to everybody who was there, the staff tell you off and drop your points (grade) – but other patients who were involved don't get <u>their</u> points (grades) dropped.

1. How angry does this make you feel?

Not at all	A little	Fairly	Very
1	2	3	4

If this happened to you:

2. You would swear or shout.

Not at all	A little	Quite a bit	A lot
1	2	3	4

3. You would want to hit the person.

Not at all	A little	Quite a bit	A lot
1	2	3	4

4. You would stay calm and cool.

Not at all	A little	Quite a bit	A lot
1	2	3	4

5. You would want to smash or kick something.

Not at all	A little	Quite a bit	A lot
1	2	3	4

6. You would want to tell the person off and start an argument.

Not at all	A little	Quite a bit	A lot
1	2	3	4

7. You would try to understand why the person did this and not get angry about it.

Not at all	A little	Quite a bit	A lot
1	2	3	4

8. How easy was it for you to imagine (see yourself) in this situation?

Very difficult	Difficult	Easy	Very easy
1	2	3	4

9. How easy was it for you to keep a clear picture of this situation in your head?

Very difficult	Difficult	Easy	Very easy
1	2	3	4

10. Remind me of what happened in this situation.
(Underline each element that the patient is able to recall without prompting)

There has been some trouble on at work. / I was involved with some other patients /

After talking to everybody who was there, / the staff tell me off / and drop my points

(grade) / - but other patients who were involved / don't get <u>their</u> points (grades) dropped.

Score =

PATIENTS' EVALUATION OF ANGER TREATMENT – PREPARATORY PHASE (PEAT-PP)

Name: ..... **Date:** .....

In the 6 preparation sessions we have tried to give you an idea of what anger treatment is all about.

1) **Overall, was it worthwhile for you to attend the sessions?**

None of the sessions 1 | Some of the sessions 2 | Yes, most of the sessions 3

2) **Have you enjoyed the sessions?**

No, not at all 1 | Some of them 2 | Yes, most of them 3

3) **Have the sessions been helpful/useful to you?**

No, not at all 1 | A little 2 | Yes, in lots of ways 3

4) **Which bits (parts) of the sessions have been most useful, interesting or helpful?**

i) .....

ii).....

iii).....

5) **Which bits (parts) of the sessions have you disliked, found unhelpful or not useful?**

i) .....

ii) .....

iii) .....

How helpful did you find the following bits?

	Unhelpful 1	A little helpful 2	Very helpful 3
6) **Finding out what anger treatment is all about**	☐	☐	☐
7) **Finding out how anger works (situations/thoughts/feelings/reactions/consequences)**	☐	☐	☐

	Unhelpful 1	A little helpful 2	Very helpful 3
8) **Learning that anger is normal and that everybody feels it sometimes**	☐	☐	☐
9) **Learning that our thoughts affect the way we feel and behave in angry situations**	☐	☐	☐
10) **Understanding the difference between happy, sad and angry feelings**	☐	☐	☐
11) **Finding out about how stress affects us ('Stress Thermometer' and physical reactions)**	☐	☐	☐
12) **Working out the costs (negative consequences) and benefits (advantages) of being angry and aggressive**	☐	☐	☐
13) **Talking about my feelings/problems**	☐	☐	☐
14) **Learning how to relax myself (self instruction/breathing control/relaxing images)**	☐	☐	☐
15) **Recording angry situations using the Anger logs**	☐	☐	☐
16) **Homework exercises**	☐	☐	☐

17) **Do you think you have changed since you started these sessions?**

No, not at all	A little, for the better	Yes, a lot-for the better
1	2	3

Explain.....

.....

18) How could we improve these treatment sessions?

.....

.....

.....

19) Finally, is there anything that you feel that you are unsure about or would like to discuss?

PATIENTS EVALUATION OF ANGER TREATMENT-TREATMENT PHASE (PEAT-TP)

Name:..... ..... Date:.....

You have now completed your anger treatment sessions, 6 preparation and 12 treatment proper sessions.

1. Overall, was it worthwhile for you to attend the sessions?

None of the sessions	Some of the sessions	Yes, most of the sessions
1	2	3

2. Have you enjoyed the sessions?

No, not at all	Some of them	Yes, most of them
1	2	3

3. Have the sessions been helpful/useful to you?

No, not all	A little	Yes, in lots of ways
1	2	3

4) Which bits (parts) of the sessions have been most useful, interesting or helpful?

i).....

ii).....

iii).....

5) Which bits (parts) of the sessions have you disliked, found unhelpful or not useful?

i).....

ii).....

iii).....

How helpful did you find the following bits?

		Unhelpful	A little helpful	Very helpful
		1	2	3
6)	Working out the kinds of situations that make you angry and how these affect you	☐	☐	☐
7)	Learning how to do relaxation exercises	☐	☐	☐
8)	Learning how to 'catch your thoughts' during anger incidents	☐	☐	☐
9)	Doing an anger hierarchy of situations in the past that have made you angry	☐	☐	☐
10)	Practicing coping well with anger situations (from your anger hierarchy) in your imagination while relaxed	☐	☐	☐
11)	Using a cassette tape to practice relaxation exercises	☐	☐	☐
12)	Learning to think differently (putting yourself in the other persons shoes) in anger situations	☐	☐	☐
13)	Understanding that you are 'sensitive' to certain kinds of anger situations that make you angry	☐	☐	☐
14)	Working out what you can tell yourself (self-instructions) to remind you how to stay calm and in control in angry situations	☐	☐	☐
15)	Role-playing (acting out) how to handle well and cope with angry situations	☐	☐	☐
16)	Learning how to sort out (problem-solve) in angry situations by being reasonable and talking to people in the right way	☐	☐	☐

		Unhelpful 1	A little helpful 2	Very helpful 3
17)	Understanding that dwelling on anger situations can make things worse	☐	☐	☐
18)	Learning how to deal with situations that are getting out of control (escalating) by backing-off or taking time-out	☐	☐	☐
19)	Having a personal reminder sheet to remind you of what to do in anger situations	☐	☐	☐
20)	Being able to talk about your problems/feelings	☐	☐	☐
21)	Recording your thoughts and feelings in your Anger Logs	☐	☐	☐
22)	Doing the homework exercises	☐	☐	☐
23)	Talking to and working with nursing staff on your anger treatment	☐	☐	☐

24) Do you think you have changed since you started your anger treatment?

No, not at all	A little, for the better	Yes, a lot for the better
1	2	3

Explain: _____

_____

_____

25) Are you a more or a less angry person now compared with when you started your anger treatment?

More angry	About the same	Less angry
1	2	3

26) How much help/support do you think you have had from staff on the ward with your anger treatment?

None	A bit	Just about the right amount
1	2	3

27) How could the anger treatment be made better for other patients in the future?

_____

_____

_____

28) Is there anything else that you are unsure about or would like to discuss?

_____

_____

_____

WARD ANGER RATING SCALE (WARS)

Patient's Name: ..... **Ward:** .....

Rater's Name: ..... **Date:** .....

Directions: Please rate the patient during the past week for each of the items below:

PART A:

During the past week, has the patient:

Expressed suspicion of others		YES	NO
Blamed someone else for his/her difficulties		YES	NO
Acting impulsively, without self restraint		YES	NO
Had a temper tantrum		YES	NO
Shouted or yelled		YES	NO
***Verbally abused someone**		**YES**	**NO**
***Verbally threatened to attack someone**	**Staff**	**YES**	**NO**
*** " " " " "**	**Patient**	**YES**	**NO**
***Physically attacked someone**	**Staff**	**YES**	**NO**
*** " " "**	**Patient**	**YES**	**NO**
Slammed, threw or deliberately broke something		YES	NO
Talked of suicide		YES	NO
Attempted suicide		YES	NO
Talked of injuring self		YES	NO
Attempted to injure self		YES	NO
Expressed delusional beliefs		YES	NO
Expressed command hallucinations to do harm	To self	YES	NO
	To others	YES	NO

(* These five items can be summed to yield an 'antagonistic behaviour' index.)

PART B: Anger Index

During the past week, to what extent was the patient:

	Not at All	Very little	Some times	Fairly often	Very often
Angry or annoyed	0	1	2	3	4
Irritable or grouchy	0	1	2	3	4
Resistant to suggestions or requests	0	1	2	3	4
Impatient or frustrated	0	1	2	3	4
Tense or uptight	0	1	2	3	4
Agitated or restless	0	1	2	3	4
Bitter or resentful	0	1	2	3	4

Appendix 8

PATIENTS' COMPETENCY CHECKLIST– PREPARATORY PHASE (PCC-PP)

Name: ..... **Date:** .....

The therapist, along with the patient's named nurse/keyworker, should consider the evidence (hard or clinical) to reach a judgement about the patients competence in each of the areas described below.

(The information in parentheses indicates if the area of competence relates to a specific preparatory phase session, or is general to this phase of treatment.)

		not competent	limited competence	competent
1.	**Understands how anger works – relationship between thoughts, feelings and behaviour (Session 1)**	☐	☐	☐
2.	**Understands the purpose of anger treatment (Session 1)**	☐	☐	☐
3.	**Aware of the functions of anger as a normal emotion (Session 2)**	☐	☐	☐
4.	**Understands the importance of self-monitoring of angry feelings (Session 2)**	☐	☐	☐
5.	**Aware of basic emotional states in others using a range of contextual cues (Session 3)**	☐	☐	☐
6.	**Understands the role cognitions play in the induction of emotions – specifically anger (Session 3)**	☐	☐	☐
7.	**Understands how stress affects thinking and behaviour (Session 4)**	☐	☐	☐
8.	**Aware of the physiological/physical reaction to stress (Session 4)**	☐	☐	☐
9.	**Is able to weigh the costs and benefits of anger and aggression (Session 5)**	☐	☐	☐
10.	**Is prepared to continue with anger treatment - PTQ (Session 5)**	☐	☐	☐

		Not competent	limited competence	competent
11.	**Ability to communicate appropriately in therapy context (General)**	☐	☐	☐
12.	**Ability to engage appropriately in therapy context (General)**	☐	☐	☐
13.	**Ability to comprehend the therapy process (General)**	☐	☐	☐
14.	**Demonstrates motivation and enthusiasm for therapy (General)**	☐	☐	☐
15.	**Ability to complete assigned homework tasks (General)**	☐	☐	☐
16.	**Ability to complete Anger Logs appropriately (General)**	☐	☐	☐
17.	**Ability to use basic relaxation strategies including controlled breathing, imagery and self-instruction (General)**	☐	☐	☐
18.	**Ability to liaise appropriately with nursing staff to facilitate anger treatment (General)**	☐	☐	☐

PATIENTS' COMPETENCY CHECKLIST– TREATMENT PHASE (PCC-TP)

Patients Name..... Date:.....

The therapist, if possible in collaboration with the patients named nurse/keyworker, should consider the evidence (hard or clinical) to reach a judgement about the patient's competence in each of the areas described below.

(The information in parentheses indicates if the area of competence relates to a specific treatment phase session, or is general to this phase of treatment.)

		Not competent 1	Limited competence 2	Competent 3
1)	Understand how anger works – relationship between thoughts, feelings and behaviour (Session 7)	☐	☐	☐
2)	Is able to understand the dimensions of their own anger problem – analysis and formulation (Sessions 7 and 8)	☐	☐	☐
3)	Understand the concept of 'thought-catching (Session 8)	☐	☐	☐
4)	Is able to construct meaningfully a useful anger hierarchy (Sessions 8 and 9)	☐	☐	☐
5)	Is able to understand the rationale for the use and practice of APR exercises (Session 8)	☐	☐	☐
6)	Understands the rationale for cognitive re-structuring (Session 10)	☐	☐	☐
7)	Is able to understand the concept of perspective-taking (Session 11)	☐	☐	☐

		Not competent 1	Limited competence 2	Competent 3
8)	Comprehends the notions of attentional focus, expectations and appraisals (Session 11)	☐	☐	☐
9)	Is able to generate useful self-instructions to cue anger control (Session 13)	☐	☐	☐
10)	Understands the importance of effective communication in problem-solving (Sessions 14 and 15)	☐	☐	☐
11)	Understands how rumination, escalation and repeated provocation can be threats to self-control (Sessions 16 and 17)	☐	☐	☐
12)	Is able to construct a realistic personal script for prompting anger control (Sessions 17 and 18)	☐	☐	☐
13)	Is aware of the sequential and integrated nature of anger control skills (Session 17)	☐	☐	☐
14)	Understands the importance of 'strategic withdrawal in some situations (Session 17)	☐	☐	☐
15)	Ability to use and benefit from APR exercises (General)	☐	☐	☐
16)	Ability to complete Anger Logs II appropriately (General)	☐	☐	☐
17)	Ability to complete Anger Logs III appropriately (General)	☐	☐	☐
18)	Ability to 'thought-catch' (General)	☐	☐	☐

		Not competent 1	Limited competence 2	Competent 3
19)	Ability to modify appraisals through perspective-taking (General)	☐	☐	☐
20)	Ability to use self-instructions (General)	☐	☐	☐
21)	Awareness of personal 'anger-sensitive' types of situations (General)	☐	☐	☐
23)	Ability to role-play successful anger coping skills (General)	☐	☐	☐
24)	Ability to communicate effectively in order to problem solve (General)	☐	☐	☐
25)	Ability to communicate appropriately in therapy context (General)	☐	☐	☐
26)	Ability to engage appropriately in therapy context (General)	☐	☐	☐
27)	Ability to comprehend therapy process (General)	☐	☐	☐
28)	Demonstrates motivation and enthusiasm for therapy (General)	☐	☐	☐
29)	Ability to complete assigned homework tasks (General)	☐	☐	☐
30)	Demonstrates regular use of APR and cassette tape (General)	☐	☐	☐
31)	Ability to liaise appropriately with nursing staff to facilitate anger treatment (General)	☐	☐	☐

32) How much help/support did the patient receive from staff on the ward with their anger treatment?

None	Limited/variable	About the right amount
1	2	3

33) Punctuality and availability for treatment sessions

Poor	Satisfactory	Good
1	2	3

34) Did the patient complete their anger treatment? **Yes/No**

35) Number of Anger Logs completed during Anger Treatment phase of treatment **N =**

36) Other comments on patient's competence

Signed:..... Date:.....

Designation:.....

CLINICIANS RATING SCALES (CRS)

Patient's Name: ..... D.o.b.:.....

Rater's Name: ..... Designation: .....

Date: .....

Length of time patient known to you (approximately) ..... year ..... months

For the above named patient, who has recently completed anger treatment, please rate him/her in comparison to how he/she was approximately 12 months ago.

1. **Tolerance for frustration**: is able to adjust to changes in routine; is flexible in how he thinks that things should be.

1	2	3	4	5
much worse	a little worse	about the same	a little better	much better

2. **Interpersonal sensitivity**: is aware of other people's needs and takes them into account before reacting.

1	2	3	4	5
much worse	a little worse	about the same	a little better	much better

3. **Sociability:** wants to involve himself in the company of others and is able to get along with others.

1	2	3	4	5
much worse	a little worse	about the same	a little better	much better

4. **Irritability:** is inclined to be touchy, to "fly-off-the-handle", is overly sensitive, or "thin-skinned".

1	2	3	4	5
much worse	a little worse	about the same	a little better	much better

5. **Tension:** is "wound-up", on edge, up-tight, and unable to relax.

1	2	3	4	5
much worse	a little worse	about the same	a little better	much better

6. **Defensive:** is inclined to perceive threat or malevolence and to react in a hostile manner.

1	2	3	4	5
much worse	a little worse	about the same	a little better	much better

Goal Attainment Scales for Emotional Awareness and Expression

Outcome levels	Ability to identify and describe emotional states in self and others (1)	Ability to demonstrate emotional expression appropriately (2)	Knowledge of emotional coping strategies (3)
Very poor (1)	Little or no evidence of being able to identify or describe emotional states in self and others.	No apparent ability to demonstrate emotional expression appropriately (i.e. withdrawn in sessions) and/or disproportionate or inappropriate expression to an event.	No apparent ideas or suggestions re appropriate coping strategies
Poor (2)	Some ability to identify and describe emotional states in self and understanding of others and/or evidence of confusion between states i.e. confusing anger with anxiety, sadness with disgust.	Limited ability to demonstrate emotional expression but only on a superficial level i.e. happy with smiling and sad with tears etc. or tendency to express disproportionate reaction to events.	Only able to make superficial/limited suggestions re appropriate coping strategies.
Satisfactory (3)	Ability to identify, describe and differentiate between common emotional states i.e. anxiety, anger, sadness and disgust in self and others.	Evidence of understanding and using appropriate expression to an emotional event, without disproportionate reaction to an emotional event.	Some ability to identify or suggest appropriate coping strategies.
Good (4)	Good ability to identify, describe and differentiate between common emotional states in self and others. No evidence of confusing different emotional states.	Good ability to express emotion correctly (indicating increasing vocabulary pool) and attach emotional expression appropriately to events both within and outside of treatment sessions	Good ability to identify appropriate emotional coping strategies and some evidence of actual use.
Very good (5)	Very good ability to be able to identify and discuss emotional states in self and others without confusion.	Consistently good ability to describe and attach an appropriate emotional expression to an event within and beyond the boundaries of the treatment sessions.	Very good understanding of appropriate emotional coping strategies and evidence of consistent use in a range of situations.

Anger Treatment (Treatment/Preparatory Phase)

REPORT ON TREATMENT SESSION

Client's Name: ..... **Session No.:** .....

Venue of Session: ..... **Date of Session:** .....

Objective(s) of Session:

.....

.....

.....

A. Therapists Report on Client's Response to Session:

Signed: ..... **Date:** .....

B. **Therapists Ratings on Client During Session:**

- **Communication**

1	2	3	4	5
Irrelevant or no contribution to discussion	A few relevant contributions to discussion	Contributions generally relevant to discussion	Good contributions relevant to discussion	Consistently good contributions relevant to discussion

- **Engagement**

1	2	3	4	5
Did not engage even when prompted	Engaged in session but only when prompted	Satisfactory engagement in session	Good level of engagement in session	Active participation relating issues beyond limit of session

- **Comprehension**

1	2	3	4	5
Did not comprehend purpose of session	Limited comprehension of purpose of session	Good comprehension of some parts of the session	Good comprehension of all parts of the session	Complete understanding of the purpose of the session

---

C. **Client's Report and Ratings on the Session:**

- **Was there anything good about today's session? (i.e. did you learn anything or find out something helpful or useful?)**
  .....
  .....

- **Was there anything bad about today's session? (i.e. did anything annoy you or wind you up?)**
  .....
  .....

- **What was the best bit/part of today's session?**
  .....
  .....

- **Did you enjoy today's session?**

  1. No, not at all. 2. Some of it. 3. Yes, all of it.

- **Are you learning anything from the sessions?**

  1. No, nothing at all 2. A bit/some things 3. Yes, lots of things

- **Are the sessions helping you?**

  1. No, not at all 2. A bit 3. Yes, in lots of ways

- **Any other comments**
  .....
  .....
  .....

ANGER LOG I

Appendix 13:

Name: **Date:** **Time:**

Where were you?

What happened?

- ☐ Somebody was taking the mick
- ☐ Somebody criticised me
- ☐ Somebody told me to do something
- ☐ Somebody did something I didn't like
- ☐ Somebody stole something of mine
- ☐ Somebody started rowing with me
- ☐ Somebody started fighting with me
- ☐ I did something wrong
- ☐ Other (specify)

Who was that somebody?

☐ Client/Patient ☐ Friend ☐ Staff ☐ Relative ☐ Other (specify)

How angry were you?

Not angry at all	A little angry	Fairly Angry	Very Angry	Furious
1	2	3	4	5

What did you do?

- ☐ Shouted/Swore
- ☐ Ran off
- ☐ Smashed/broke something
- ☐ Tried to hit someone
- ☐ Actually hit someone
- ☐ Walked away calmly
- ☐ Talked it over
- ☐ Told someone else
- ☐ Ignored it
- ☐ Other (specify)

How well do you think you handled this situation/problem?

Badly	**Not very well**	**OK**	**Well**	**Very Well**
1	2	3	4	5

Other comment

ANGER LOG II

Name: **Date:** **Time:**

Where were you?

What happened?

- ☐ Somebody was taking the mick
- ☐ Somebody criticised me
- ☐ Somebody told me to do something
- ☐ Somebody did something I didn't like
- ☐ Somebody stole something of mine
- ☐ Somebody started rowing with me
- ☐ Somebody started fighting with me
- ☐ I did something wrong
- ☐ Other (specify)

Who was that somebody?

☐ Client/Patient ☐ Friend ☐ Staff ☐ Relative ☐ Other (specify)

What were you thinking about when this happened?

How angry were you?

Not angry at all	A little angry	Fairly Angry	Very Angry	Furious
1	2	3	4	5

What did you do?

- ☐ Shouted/Swore
- ☐ Ran off
- ☐ Smashed/broke something
- ☐ Tried to hit someone
- ☐ Actually hit someone
- ☐ Talked it over
- ☐ Told someone else
- ☐ Ignored it
- ☐ Other (specify)

How well do you think you handled this situation/problem?

Badly	Not very well	OK	Well	Very Well
1	2	3	4	5

ANGER LOG III

Name: **Date:** **Time:**

Where were you?

What happened?

Who was that somebody?

☐ Client/Patient ☐ Friend ☐ Staff ☐ Relative ☐ Other (specify)

What were you thinking about when this happened?

How angry were you?

Not angry at all	A little angry	Fairly Angry	Very Angry	Furious
1	2	3	4	5

What did you do?/How did you react?

- ☐ Shouted/Swore
- ☐ Ran off
- ☐ Smashed/broke something
- ☐ Tried to hit someone
- ☐ Actually hit someone
- ☐ Talked it over
- ☐ Told someone else
- ☐ Ignored it
- ☐ Other (specify)
- ☐ Walked away calmly

What other thoughts could you have had in this situation? (Try to put yourself in the other persons shoes)

How well do you think you handled this situation/problem?

Badly	Not very well	OK	Well	Very Well	
	1	2	3	4	5

STAFF QUESTIONNAIRE (SQ)

Introduction

As you will be aware we have been running the Anger Treatment Programme (ATP) in the hospital during the past twelve months. We are now evaluating this programme and as a named nurse for patient(s) who has received anger treatment we would be grateful in having your views on the programme as part of this evaluation. Whilst we are asking you your name and designation in working through this part of the evaluation, your personal information will not be included in any report on the programme as we are mainly interested in seeing how the treatment has benefited patients as a whole. Thank you for your continued help and support with this work.

Interview Information

Coding

Interview conducted by:

Name: ..... Designation: .....

Date of Interview: .....

Staff Information

Name: ..... Designation: .....

Gender: M/F Number of years post qualification: .....

Clinical area (unit/villa): .....

Length of time worked in this clinical area: ..... years ..... months

Cod

Patient Information

Number of patients worked with who have received anger treatment (including those not named nurse for): .....

Names of patients worked with who have received anger treatment (indicate with a * those named nurse for):

Anger Treatment Programme Information

1. On the whole would you say that the patients who have had anger treatment have benefited from it?

1	2	3	4	5
not at all	probably not	maybe	to some extent	a great deal

2. In what ways do you think patients have benefited from having anger treatment?

(i) .....

(ii) .....

(iii) .....

(iv) .....

3. In general terms would you say your experience and involvement in the ATP has been positive or negative?

1	2	3	4	5
very negative	negative	okay	positive	very positive

4. Do you think you have learned anything about anger treatment from your involvement with the project?

1	2	3	4	5
nothing at all	probably nothing	maybe something	to some extent	a great deal

5. What are the most important things you have learned about anger treatment from your involvement?

(i) .....

(ii) .....

(iii) .....

6. Would you say that your involvement in the ATP has had an effect on the way you deal with other patients' anger and aggression problems?

1	2	3	4	5
not at all	probabl y not	maybe	to some extent	a great deal

7. In what ways has your involvement with the ATP had an effect on the way you deal with other patients' anger and aggression problems?

(i) .....

(ii) .....

(iii) .....

(iv) .....

8. Do you think other patients on the villa/unit have benefited from some patients receiving anger treatment and/or from your involvement?

1	2	3	4	5
not at all	probably not	maybe	to some extent	a great deal

9. In what ways do you think other patients have benefited from some patients receiving treatment and/or from your involvement?

(i) .....

(ii) .....

(iii) .....

(iv) .....

Based on your experience how could the anger treatment be improved to help patients with anger control problems in the future?

(i) .....
(ii) .....
(iii) .....

10. How could the anger treatment be improved to help ***you*** support anger treatment work with patients on your villa/unit?

(i) .....
(ii) .....
(iii) .....

11. Do you have any other thoughts, suggestions or comments about the anger treatment project?

(i) .....
(ii) .....
(iii) .....

Thank you for your help and support with developing this treatment programme and with this survey.

a

Women's Anger Treatment Project - Staff Interview

Name:.....(Named Nurse)

Date:..... Interviewer.....

Please complete the first part of this questionnaire for ..... who has just spent the last 3 – 4 months taking part in anger treatment. If your patients have not yet received treatment go on to Q6. Circle the number on the scale which represents your response. Seldom is defined as 1-2 occasions; occasionally as 3-4 occasions, often as 5-6 occasions and very often more than 6 occasions.

1. How often did you help this patient with their anger treatment?

Never/seldom/occasionally/often/very often
0 1 2 3 4

2. How often did you help her fill in an anger log?

Never/seldom/occasionally/often/very often

3. How often did you prompt her to use relaxation?

Never/seldom/occasionally/often/very often

4. How often did you talk through an anger situation with her?

Never/seldom/occasionally/often/very often

5. Did you become more/ less sympathetic to this patient's anger/aggression?

More sympathetic/less sympathetic/about the same

Other patients:

6. How often did you help other patients with their anger treatment?

Never/seldom/occasionally/often/very often
0 1 2 3 4

7. How often did you help them fill in an anger log?

Never/seldom/occasionally/often/very often

8. How often did you prompt them to use their relaxation?

Never/seldom/occasionally/often/very often

9. How often did you talk through an anger situation with them?

Never/seldom/occasionally/often/very often

10. Did you become more or less sympathetic to other patients' anger/aggression?

More sympathetic/less sympathetic/about the same

11. Did you use elements of anger treatment to tackle problems other than anger or aggression (generalisation across behaviours e.g. anxiety, depression, difficulty expressing emotions?

Never/seldom/occasionally/often/very often

12. Did you use elements of the anger treatment to help people other than your own patients (generalisation across persons)?

Never/seldom/occasionally/often/very often
State who: family/ friends/ staff/ colleagues

13. Did you use elements of anger treatment to develop new approaches for working with your patients (response generalisation) e.g. structured diary keeping, recording frequency of feelings or behaviour, cognitive restructuring.

Never/seldom/occasionally/often/very often

14. How often did you discuss the anger treatment project with your colleagues

In a positive light?
Never/seldom/occasionally/often/very often

In a negative light?
Never/seldom/occasionally/often/very often

15. Did you receive a copy of the Newsletter sent out at the start of the project and did you read it?

Never received one/ received but unread/ read briefly/ read thoroughly once/ read more than once.

CONTENTS AND AIMS OF ANGER TREATMENT SESSIONS

I. PREPARATORY PHASE OF TREATMENT (6 SESSIONS)

Session 1 - Explaining the purpose of anger treatment

- To orientate the patient to the purpose of anger treatment, and the preparatory phase in particular, in a non-threatening style.
- To encourage the patient to discuss the treatment openly and thereby begin to develop a collaborative working relationship.
- To discuss and agree ground rules and boundaries within which this work can take place.
- To introduce the concept of relaxation strategies as a means of reducing anger arousal.
- To introduce the notion of homework exercises as one way of carrying over learning between sessions and beginning to take some personal responsibility.

Session 2 - Feeling angry is OK

- To explain that anger is a normal emotion which everybody experiences from time to time.
- To indicate to the patient that their feelings of anger are no different to other peoples.
- To explore in a preliminary manner different coping strategies people can use when angry.
- To introduce the concept of self-monitoring of angry feelings and how these can be recorded.
- To explore various relaxation strategies as a means of reducing anger arousal.

Session 3 - Understanding our own and other peoples feelings

- To help patients to recognise and identify basic emotional states in other people, including happiness, sadness and anger.
- To increase awareness of the situational/contextual component of the development of various emotional states.
- To introduce the role cognitions play in the induction of different emotions and behavioural responses to situations.
- To explore with the patient how thoughts and feelings are linked with reference to their own emotional state.
- To develop relaxation coupled with imagery as a means of reducing anger arousal.

Session 4 - How to control the physical feelings of anger

- To help patients understand how high levels of stress affects thinking and behaviour.
- To discuss and explore the physical response to high levels of stress.

- To consider in detail how relaxation can counteract the physical arousal associated with high levels of stress and so increase self-control.
- To further develop relaxation coupled with imagery as a means of reducing anger associated with self-recorded incidents.
- To introduce the concept of self-instruction as a means of facilitating self-control.

Session 5 - Reasons for changing the way we cope with angry feelings

- To encourage the patient's commitment to and motivation for anger treatment.
- To explore with the patient the costs and benefits of anger and aggression both in the short and longer term.
- To help the patient to understand that the benefits of developing self-control over anger and aggression outweigh those gained by continuing to be angry and aggressive.
- To assess the patients preparedness and motivation for anger treatment.
- To further develop relaxation coupled with imagery, using self-instruction, as a means of reducing anger arousal.

Session 6 Looking back at the Preparatory sessions and looking forward to what comes next- (review)

- To review with the patient the aims and the content of the preparatory phase sessions.
- To receive feedback on the preparatory phase through patients' evaluation of the sessions.
- To discuss with the patient whether they wish to continue with anger treatment beyond the preparatory phase.
- To further develop relaxation strategies involving self-instruction, controlled breathing and use of imagery as a means of reducing anger arousal.
- To assess the patients' competencies in a range of areas covered during the preparatory phase sessions.

II. TREATMENT PHASE SESSIONS (12 SESSIONS)

Session 7 - Introduction to the Treatment phase of anger treatment

- To review briefly the preparatory phase of treatment, focusing on what anger treatment is about and motivation for change.
- To re-orientate the patient to the purpose of anger treatment, and the treatment phase in particular, in a non-threatening and collegial style.
- To carry out an analysis of the patient's anger problem and reach a shared preliminary formulation of treatment needs.
- To re-introduce self-monitoring of anger problems and relaxation strategies to reduce anger arousal.

Session 8 - Building an anger hierarchy

- To refine the preliminary '*external events x internal processes x behavioural responses*' analysis and formulation started in the last session.
- To begin to construct a hierarchy of anger incidents to be used in the stress inoculation procedure in future sessions.
- To introduce the concept of *'thought catching'* as a means of increasing awareness of self-talk (internal dialogue).
- To expose the patient to *abbreviated progressive relaxation (APR)* as a technique for deepening the effects of relaxation.

Session 9 - Introduction to stress inoculation

- To complete the construction of the *hierarchy of anger incidents* to be used in the stress inoculation procedures.
- To develop the patients understanding of *thought-catching* as a means of increasing awareness of self-talk (internal dialogue).
- To rehearse the *abbreviated progressive relaxation (APR)* exercises prior to personal practice between sessions.
- To introduce the *stress inoculation procedure* as a means of improving the patients ability in coping with anger situations.

Session 10 - Beginning cognitive re-structuring

- To introduce the concepts of *expectations and appraisals (judgements)* as cognitive processes that can cue anger in certain situations. To begin *cognitive re-structuring* using material collected by patients in their Anger Logs.
- To develop the *stress inoculation* procedures began in the last session.
- To rehearse *abbreviated progressive relaxation (APR)* and review practice of these exercises between sessions.

Session 11 - Developing cognitive re-structuring

- To work on the concepts of *attentional focus, expectations and appraisals* as cognitive processes that can cue anger in certain situations.
- To develop *cognitive re-structuring* using material collected by patients in the Anger Logs.
- To introduce the concept of *'perspective-taking'* to enhance appraisal modification.
- To develop further *stress inoculation* procedures.

Session 12 - Perspective-taking and role-playing

- To enhance cognitive restructuring by developing concept of *perspective-taking* as an effective means of modifying appraisals. To continue to develop further *stress inoculation* procedures to improve imaginal coping in anger situations.
- To introduce *role-playing* as a technique for practising behavioural coping skills previously rehearsed in imagination.

Session 13 - Using self-instructions effectively

- To develop cognitive re-structuring incorporating perspective-taking and re-introducing the notion of *self-instructions.*
- To continue to develop further *stress inoculation* procedures by incorporating and rehearsing the use of *self-instructions.*
- To develop *role-playing* as a technique for practising behavioural coping skills previously rehearsed in imagination.
- To introduce the idea of dealing with anger situations effectively by *communicating constructively (problem-solving approach).*

Session 14 - Problem-solving through effective communication

- To further develop *cognitive re-structuring* incorporating *perspective-taking* and *self-instructions.*
- To continue to develop further *stress inoculation* procedure incorporating *self-instructions* and *effective communication.*
- To develop further *role-playing* as a technique for practising *behavioural coping skills* previously rehearsed in imagination.

Session 15 - Development of problem-solving through effective communication

- To further develop *cognitive re-structuring* incorporating *perspective-taking* and *self-instructions.*
- To develop skills in dealing with anger situations effectively by *communicating constructively (problem-solving approach).*
- To continue to develop further *stress inoculation* procedure incorporating *self-instructions* and *effective communication.*
- To develop further *role-playing* as a technique for practising *behavioural coping skills* previously rehearsed in imagination.

Session 16 - Dealing with rumination & escalation

- To further develop *cognitive re-structuring* incorporating *perspective-taking* and *self-instructions.*
- To further develop skills in dealing with anger situations effectively by *communicating constructively (problem-solving approach).*
- To introduce the concepts of *rumination and escalation* which can work against self-control of anger.
- To continue to develop further *stress inoculation* procedures including *imaginal* and *role-play* exposures to anger provoking situations.

Session 17 - Integration of skills & dealing with repeated provocation

- To further develop *cognitive re-structuring* incorporating *perspective taking* and *self-instructions.*
- To discuss how the sequential *skills* involved in dealing with anger situations need to be *integrated* in order to be effective.
- To further develop skills in dealing with anger situations effectively by *communicating constructively (problem-solving approach).*

- To introduce the concept of *repeated provocation* and how this can be dealt with.
- To continue to develop further *stress inoculation* procedures including *imaginal* and *role-play* exposures to anger provoking situations.

Session 18 - Review & evaluation of anger treatment phase

- To consolidate the patients *personal script* for dealing with anger situations.
- To review with the patient the work completed in the anger treatment phase sessions.
- To assess the patients' competencies in a large range of areas worked on during the anger treatment phase sessions.

CONSENT FORM I
for preparatory sessions

(To be completed before pre-treatment preparation sessions begin)

Name of the Research Project: Anger Problems in Detained Women with a Learning Disability – an Evaluation of Treatment Effectiveness.

Name of the Researchers: Alison Robertson, Consultant Clinical Psychologist

- I have read, or had read to me the leaflet explaining the research. Yes/No
- I have had the project, and the meaning of confidentiality, explained to me by:
  i) .....(psychologist)
  and
  ii) .....(my named nurse) Yes/No
- I have been given a copy of this consent form. Yes/No
- I agree to take part in the research project. Yes/No
- I understand that the details of what is talked about in the treatment sessions are confidential (within the limits explained in the information leaflet). Yes/No
- I have been told that I can stop doing the treatment sessions at any time, without giving a reason, and this will not affect my treatment in the hospital in future. Yes/No

I can confirm that I have explained to the participant (patient) the nature of the project and have given adequate time to answer questions about it.

Signed:..... (patient) **Name(printed):.....**

Signed:.....(named nurse) **Name (printed):.....**

Signed:.....(psychologist) **Name (printed):.....**

Date:.....

CONSENT FORM II
for treatment

(To be completed following pre-treatment preparation sessions and before treatment begins)

Name of the Research Project: Anger Problems in Detained Women with a Learning Disability – an Evaluation of Treatment Effectiveness.

Name of the Researchers: Alison Robertson, Consultant Clinical Psychologist

- I have completed the anger treatment preparation sessions with .....(psychologist) Yes/No
- I understand what the anger treatment sessions will involve if I agree to carry on. Yes/No
- I have been given a copy of the consent form. Yes/No
- I agree to take part in the anger treatment sessions. Yes/No
- I understand that the details of what is talked about in the treatment sessions are confidential (within the limits explained in the information Leaflet). Yes/No
- I have been told that I can stop doing the treatment sessions at any time, without giving a reason, and this will not affect my treatment in hospital in future. Yes/No

I can confirm that I have explained to the participant (patient) the nature of the treatment and have given adequate time to answer questions about it.

Signed:..... (patient) **Name(printed):.....**

Signed:.....(psychologist) **Name (printed):.....**

Signed:.....(named nurse) **Name (printed):.....**

Date:.....

FORENSIC PSYCHOLOGY SERVICE

Will you help us with our research?

(for patients being offered anger treatment)

Research about what treatment helps patients who sometimes feel angry and lose their temper.

Who are we?

We are psychologists who work at the Hospital.

What are we doing?

We are trying to find out what treatment can help patients at the Hospital who feel angry and sometimes find it hard to control their temper.

How do we do this?

We have already talked to most of the patients, including you, living in the secure wards at the Hospital about any problems they have with angry feelings.

What do we want to do next?

For some of the patients we have talked to about their angry feelings, we would like to offer them some treatment which we hope will help them now, and in the future.

What does this treatment involve?

This treatment involves one of the psychologists coming to see you once or twice a week for about an hour each time. During these sessions the psychologist will talk to you about the things that make you feel angry and how you try to handle this. The psychologist will then discuss with you some different ways of coping with these feelings so that you can handle angry situations better.

Do I have to take part in this research?

No, it is your choice. The psychologists are offering you the chance to do this treatment because we think it will help you. It will only work if you think it will help also. If you do not want to take part this will not affect your treatment in the future. If you agree and then change your mind later that will be alright as well.

What happens next if I do take part?

If you do agree to take part then the psychology assistant working with us will come to see you in the near future. The assistant will ask you again about the sorts of things that make you feel angry and how you handle these feelings. Then the psychologist will come to see you regularly and will begin by explaining the treatment, what it involves

and how it works. The psychologist will see you regularly for about 3 or 4 months (up to 16 weeks).

What happens when the treatment finishes?

At the end of the treatment sessions we hope that you will be better at handling and coping with angry feelings. The assistant psychologist will visit you occasionally – after 4 months – and after about 12 months (1 year) to ask you about how you are getting on.

What happens to the information I give to the psychologists?

Any information you give to the psychologists during the assessment and treatment sessions will be dealt with in the same way as other information about your treatment. This means that the details of what you discuss with the psychologists will not usually need to be passed on to anybody else. However, if you did tell the psychologists about any plans to do things which could cause harm to yourself or other people this information would need to be passed on to nursing staff, and possibly to your Responsible Medical Officer (Doctor) also. Usually though the psychologists will let the other members of the team involved in your care know how you are getting on with the treatment generally by preparing reports for your case reviews in the normal way.

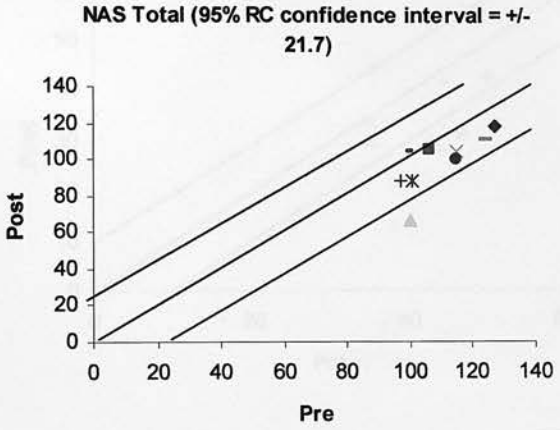
As well as this the psychologists will be looking at how you and other patients have got on with this treatment to see if it will help other patients with anger problems in the future. For this part of the project your name will not be mentioned and other people will not get any information about you personally.

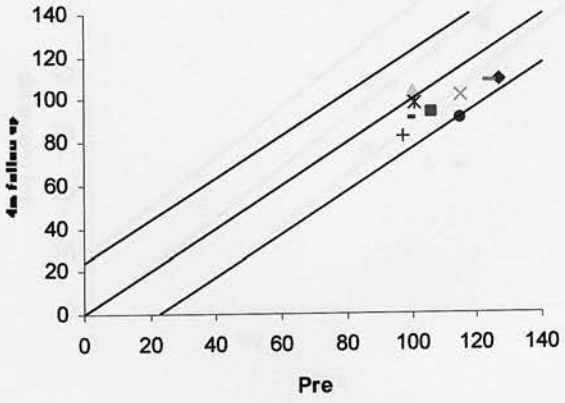
If you would like some more information about this research project, or would like to talk about it some more please contact:

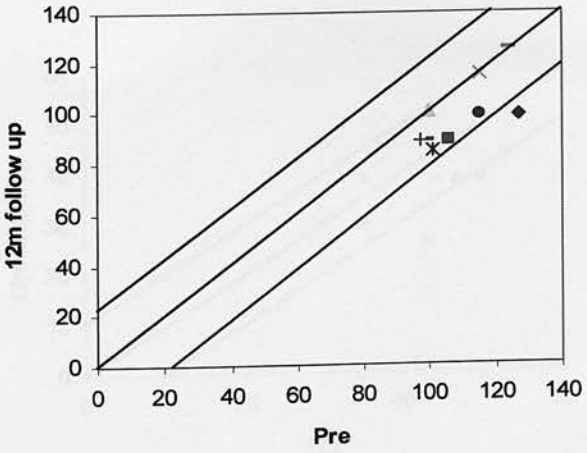
Alison Robertson
Consultant Clinical Psychologist,
Psychology Department,
the Hospital.
Telephone: xxx, Extension no. xx

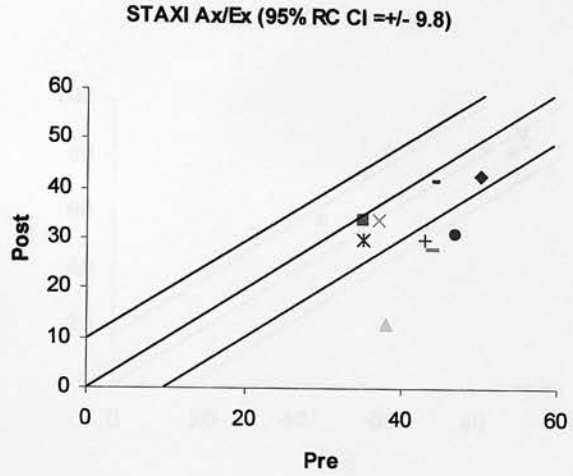
Numbers of participants who reliably changed following treatment.

N.B. Colour coding consistently relates to same participants throughout.





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Pre
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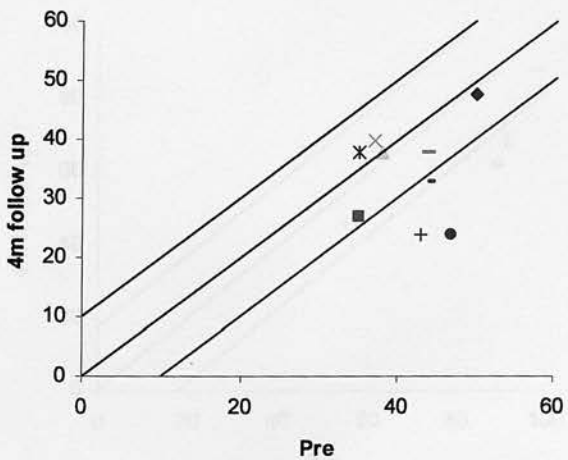
10
20
30
40
50
60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Pre
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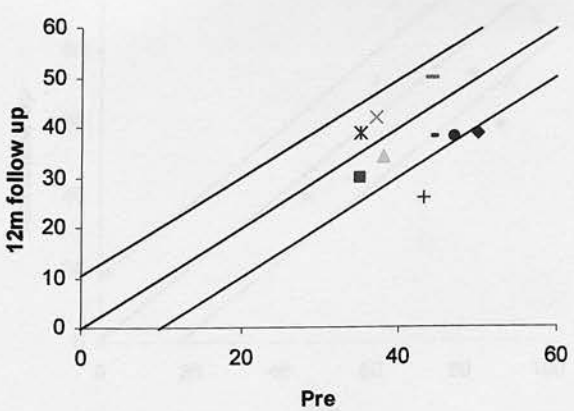
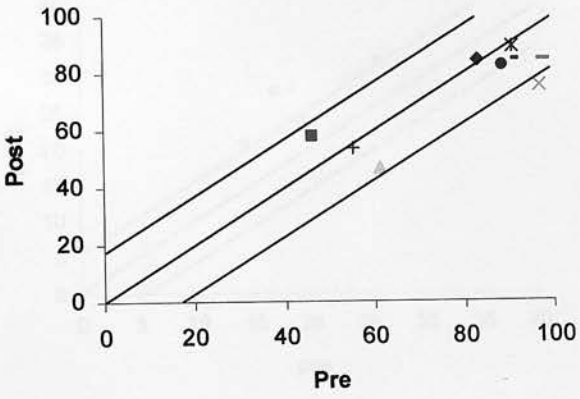
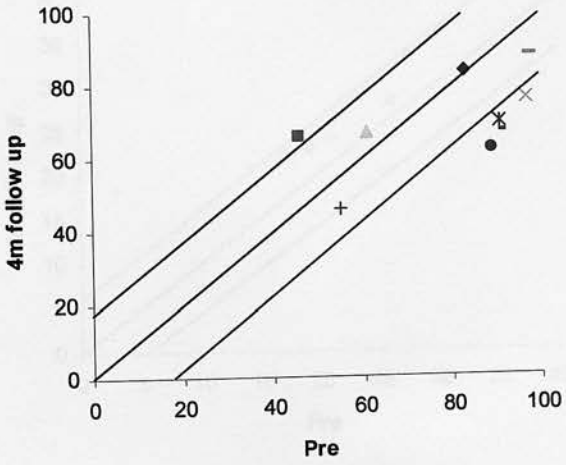
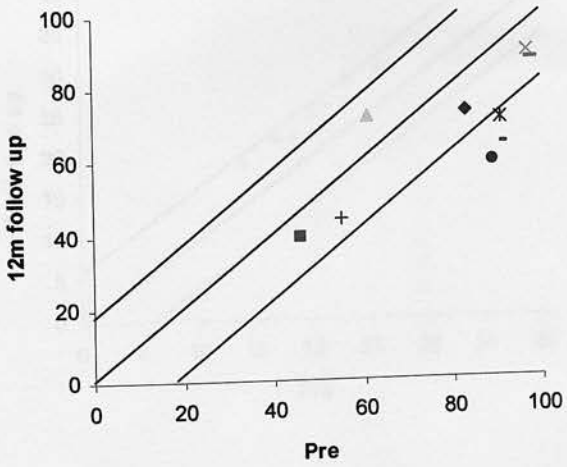
20
30
40
50
60

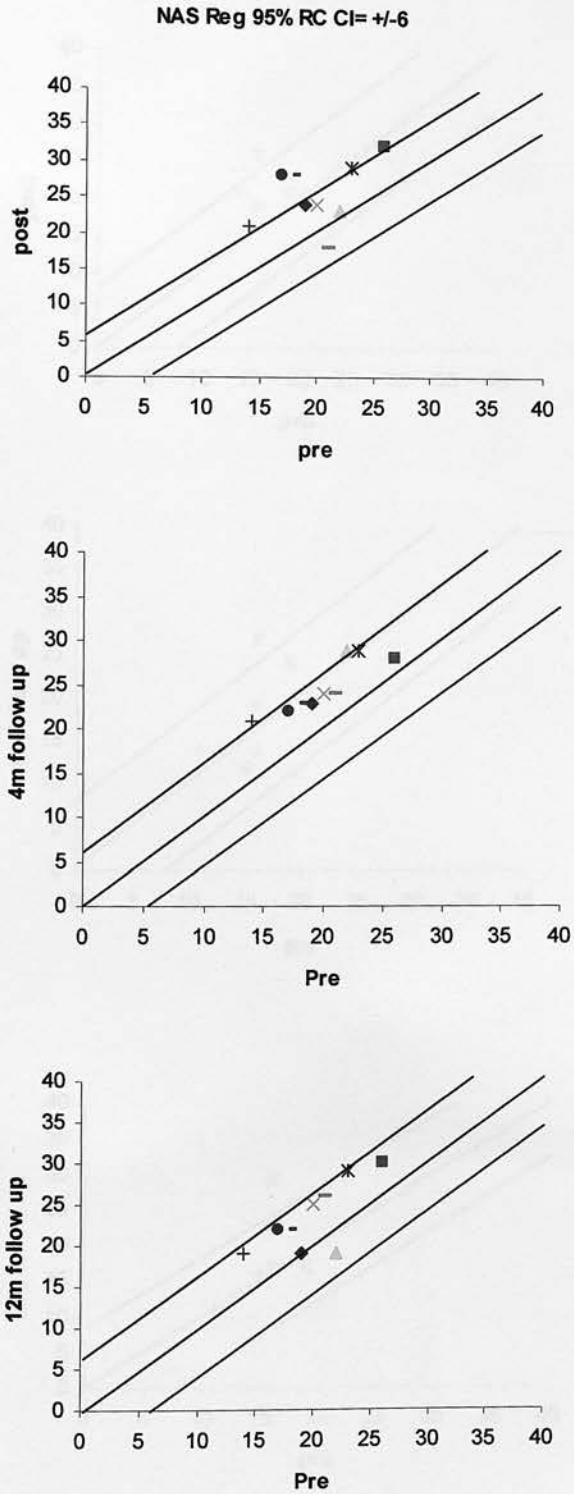

12m follow up
Pre
0
10
20
30
40
50
60

PI Total (RC CI = +/- 17.9)








NAS Reg 95% RC CI= +/-6
post
pre
4m follow up
Pre
12m follow up
Pre
0
5
10
15
20
25
30
35
40

STAXICon 95% RC CI =+/-8.16